



**U.S. Department of Agriculture
Forest Service**

National Mapping Program Technical Instructions

Part 3 Transportation

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
Part 3: Transportation

CONTENTS

	Page
3. Transportation	3-1
AIRCRAFT FACILITY	3-2
BRIDGE	3-5
CUL-DE-SAC	3-8
DRAW SPAN	3-9
FORD	3-10
GATE	3-11
HELIPAD	3-12
HELISPOT	3-13
INTERCHANGE	3-14
LANE	3-15
MONORAIL	3-17
RAILWAY	3-18
RAILWAY YARD	3-22
REST SITE	3-23
ROAD	3-25
ROAD BLOCK/BERM/BARRIER	3-38
ROUTE	3-39
RUNWAY/APRON/TAXIWAY	3-44
SCENIC BYWAY	3-46
TRAFFIC INSPECTION FACILITY	3-47
TRAIL	3-49
TUNNEL	3-51
TUNNEL ENTRANCE	3-53
TURNTABLE	3-54

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
Part 3: Transportation

3. TRANSPORTATION

This part of the standard provides a description of the Transportation features shown on USGS and USDA Forest Service single edition quadrangle maps.

AIRCRAFT FACILITY

AIRCRAFT FACILITY - An area where aircraft can take-off and land, usually equipped with associated buildings and facilities.

Characteristics

Show the following AIRCRAFT FACILITIES:

Airport	Facility used primarily by conventional, fixed wing aircraft.
Heliport	Facility used primarily by rotary wing aircraft.
Helitack Base	Facility used for the training of fire fighting personnel or the staging of rotary wing aircraft for the purpose of fire fighting.
Seaplane Base	Facility used primarily by seaplanes.

Show the following AIRCRAFT FACILITIES based on their operational status:

Abandoned	Intact but not maintained or intended for use.
Operational	Usable and intended for use.
Under Construction	Construction has begun but is not completed.

Show the names of AIRCRAFT FACILITIES.

Delineation

The limit of an AIRCRAFT FACILITY is the extent of the area encompassing all associated structures.

Depiction Conditions

If an AIRCRAFT FACILITY is named,
Then show the name.

Source Interpretation Guidelines

All

Verify all named AIRCRAFT FACILITIES with the U.S. Government Flight Information Publication entitled "Airport and Facilities Directory" by the U.S. Department of Commerce, NOAA/NOS.

AIRCRAFT FACILITY

Show the buildings, runway/apron/taxiways, and other facilities associated with AIRCRAFT FACILITIES as they would normally be depicted.

Do not depict a structure used for the landing and take-off of helicopters as an AIRCRAFT FACILITY (heliport or helitack base). See HELIPAD.

Do not depict an unimproved or marked clearing on the ground used for the landing and take-off of helicopters as an AIRCRAFT FACILITY (heliport or helitack base). See HELISPOT.

Graphic

The type placement on previously published maps may be used to help determine the extent of the AIRCRAFT FACILITY.

Symbolization

Characteristics	Symbol	Label
Airport, Abandoned	N/A	N/L; Show name (and "Airport" if not part of name) and "(Abandoned)"
Airport, Operational	N/A	N/L; Show name and "Airport" if not part of name
Airport, Under Construction	N/A	N/L; Show name (and "Airport" if not part of name) and "(Under Construction)"
Heliport, Abandoned	N/A	N/L; Show name (and "Heliport" if not part of name) and "(Abandoned)"
Heliport, Operational	N/A	N/L; Show name and "Heliport" if not part of name
Heliport, Under Construction	N/A	N/L; Show name (and "Heliport" if not part of name) and "(Under Construction)"

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

AIRCRAFT FACILITY

Characteristics	Symbol	Label
Helitack Base, Abandoned	N/A	N/L; Show name (and "Helitack Base" if not part of name) and "(Abandoned)"
Helitack Base, Operational	N/A	N/L; Show name and "Helitack Base" if not part of name
Helitack Base, Under Construction	N/A	N/L; Show name (and "Helitack Base" if not part of name) and "(Under Construction)"
Seaplane Base, Abandoned	N/A	N/L; Show name (and "Seaplane Base" if not part of name) and "(Abandoned)"
Seaplane Base, Operational	N/A	N/L; Show name and "Seaplane Base" if not part of name
Seaplane Base, Under Construction	N/A	N/L; Show name (and "Seaplane Base" if not part of name) and "(Under Construction)"
* If an AIRCRAFT FACILITY is within a RESERVATION (Boundaries theme) with the same name, do not show the AIRCRAFT FACILITY name.		

BRIDGE

If a bridge does not meet depiction conditions and carries a RAILWAY, ROAD, or TRAIL over another RAILWAY, ROAD, or TRAIL, break the lower feature to indicate an underpass but do not show a BRIDGE.

Do not show an underpass between a RAILWAY or ROAD and a hydrographic feature, even if there is no separating structure. A RAILWAY or ROAD is always assumed to be above the water body, never below it.

If a BRIDGE carries multiple features, it is delineated at the greatest horizontal extent.

If a BRIDGE carries a hydrographic feature, depict it in the Hydrography theme.

Graphic

Indicate named BRIDGES that are not large enough to be depicted with bridge wing ticks by labels only over double-line hydrographic features on previously published maps.

Symbolization

Characteristics	Symbol	Label
Covered	511.15 wing tick	Covered Bridge; Show name if known
Not Covered, Double Decked	511.15 highway or road bridge 511.15 highway or road drawbridge 511.23 footbridge 512.21 railroad bridge 512.21 railroad drawbridge	N/L; Show name if known and "(Double-Decked)"
Not Covered, Not Decked	511.15 highway or road bridge 511.15 highway or road drawbridge 511.23 footbridge 512.21 railroad bridge 512.21 railroad drawbridge	N/L; Show name if known

CUL-DE-SAC - The round or circular section of the end of a dead-end street.

Characteristics

N/A

Depiction Conditions

If a CUL-DE-SAC is on a class 3 road and does not contain an island,
Then show.

Source Interpretation Guidelines

All

Do not depict dead-end roads with islands as CUL-DE-SACS. See ROAD.

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	511.42	N/L

DRAW SPAN - The movable portion of a bridge deck.

Characteristics

N/A

Delineation

The limit of a DRAW SPAN is the edge of the bridge section which can be moved.

Depiction Conditions

Show all.

Source Interpretation Guidelines

All

If a DRAW SPAN is shown, also show a BRIDGE.

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	511.15 highway or road 512.21 railroad	N/L

FORD

FORD - A location in a body of water for a road or trail crossing where the physical characteristics of the bottom, water depth, and approaches permit passage without a bridge or ferry.

Characteristics

Show the names of FORDS if they are known.

Delineation

The limit of a FORD is the extent of the edges of the traffic lanes across the body of water and the SHORELINES (Hydrography theme).

Depiction Conditions

If a FORD provides passage for a class 2 or class 3 ROAD,

Or

If a FORD provides passage for a class 4 or class 5 ROAD and is ≥ 0.025 " (50 feet at 1:24,000 scale) along the longest axis,

Then show.

Source Interpretation Guidelines

All

Do not depict hard surfaced low water bridges as FORDS. See BRIDGE.

Do not show fords on TRAILS.

Graphic

N/A

Symbolization

Characteristics	Symbol*	Label
N/A	511.48	Ford; Show name if known
* Dash class 2 and class 3 (light-duty) roads on double-line streams. Lineweight 0.003", dash 0.05", space 0.02". Show the overall symbol width the same as the road width.		

HELIPAD

HELIPAD - A structure used for the landing and take-off of helicopters.

Characteristics

Show the names of HELIPADS if they are known.

Delineation

The limit of a HELIPAD is the extent of the structure.

Depiction Conditions

If a HELIPAD is not on a BUILDING (Built-up theme) and is not part of a RUNWAY/APRON/TAXIWAY,
Then show.

Source Interpretation Guidelines

All

Show the structure used for the landing and take-off of helicopters as a HELIPAD but do not depict an area that is equipped with associated buildings and facilities to support the landing and take-off of helicopters as a HELIPAD. See AIRPORT FACILITY (heliport or helitack base).

Do not depict an unimproved or marked clearing on the ground used for the landing and take-off of helicopters as a HELIPAD. See HELISPOT.

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	511.33	Helipad; Show name if known

HELISPOT

HELISPOT - An unimproved clearing or marked clearing on the ground used for the landing and take-off of helicopters.

Characteristics

N/A

Delineation

The limit of a HELISPOT is the extent of the clearing.

Depiction Conditions

If the location of a HELISPOT is provided by the USDA Forest Service,
Then show.

Source Interpretation Guidelines

All

Do not depict a structure used for the landing and take-off of helicopters as a HELISPOT. See HELIPAD.

Do not depict an area that is equipped with associated buildings and facilities to support the landing and take-off of helicopters as a HELISPOT. See AIRPORT FACILITY (heliport or helitack base).

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	511.46	Helispot

INTERCHANGE

INTERCHANGE - An area designated to provide traffic access between roadways of differing levels.

Characteristics

Show the interchange designators or names of INTERCHANGES if they are known. The showing of the interchange designator is preferred over the showing of the name.

Delineation

The limit of an INTERCHANGE is the extent of the area encompassing all ramps.

Depiction Conditions

If an INTERCHANGE is part of an Interstate, U.S. numbered, or State Highway System, and has been identified with an interchange designator or name by the responsible authority,

Then show the interchange designator or name.

Source Interpretation Guidelines

All

Depict the roads in INTERCHANGES as ROADS.

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	N/A	Show interchange designator or name; Include the word "INTERCHANGE" in interchange designator

LANE - A prescribed course for ships, boats, or seaplanes.

Characteristics

Show the following LANES:

Airboat Trail	Area where the vegetation has been compressed by airboats traveling through swamps and marsh lands.
Canoe Trail	A designated course for canoes to follow when traversing one or more water bodies.
Ferry Crossing	Route used to transport traffic between two points separated by water.
Seaplane Landing/Takeoff	Water area used for seaplane landing and takeoff.
Shipping	Designated course for ships to follow when traversing one or more water bodies.

Show the following shipping LANES:

Dredged	Lane has been dug out to provide an adequate depth of water for navigation.
Turning	Area designated as a place for ships to turn.
Undredged	Lane has not been dug out.

Show the names of LANES (other than canoe trails) if they are known.

Delineation

The limit of a LANE is the extent of the water which has been dredged or designated for a particular purpose.

Depiction Conditions

If a LANE is used as a ferry crossing or seaplane landing/take-off,

Or

If a LANE is used as an airboat trail, is ≥ 0.02 " (40 feet at 1:24,000 scale) along the shortest axis, is ≥ 1.0 " (2,000 feet at 1:24,000 scale) along the longest axis, and connects other trails or goes to another feature that is shown,

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
Part 3: Transportation

LANE

Or

If a LANE is a dredged shipping lane or a turning basin shown on a NOS chart and is ≥ 0.02 " (40 feet at 1:24,000 scale) along the shortest axis,

Or

If a LANE is an undredged shipping lane shown on a NOS chart,

Or

If a LANE is used as a canoe trail and the location is provided by the USDA Forest Service,

Then show.

Source Interpretation Guidelines

All

Depict marine highways in Alaska as ferry crossing LANES.

Graphic

Depict shipping lanes symbolized with a dashed blue line or lines on previously published maps as dredged shipping LANES.

Symbolization

Characteristics	Symbol	Label
Airboat Trail	541.16	AIRBOAT TRAIL; Show name if known
Canoe Trail	541.16	N/L
Ferry Crossing	511.24 highway or road 512.23 railroad	FERRY; MARINE HIGHWAY (in Alaska); Show name if known
Seaplane Landing/Takeoff	541.65	SEAPLANE LANDING AREA; Show name if known
Shipping, Dredged	541.15	N/L; Show name if known
Shipping, Turning	541.15	N/L; Show name if known
Shipping, Undredged	N/A	N/L; Show name if known

MONORAIL

MONORAIL - A single rail on which a vehicle or train of cars travels.

Characteristics

N/A

Delineation

The limit of a MONORAIL is the extent of the rail.

Depiction Conditions

Show all.

Source Interpretation Guidelines

All

N/A

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	512.95	MONORAIL

RAILWAY

RAILWAY - A set of parallel rails on which a train or trolley runs.

Characteristics

Show the following RAILWAYS:

General Case	Those that are in common use.
Incline Railway	Railway used to traverse steep slopes.
Miniature	Small scale railway, generally used for amusement.
Transit	Suburban and urban railway (including light rail such as trolleys, cable cars and carlines) used only for transporting people.
Unspecified	Does not have to be known or specified for the feature to be shown.

Show the following general case RAILWAYS:

Primary	Tracks providing a direct route through an area.
Siding	Tracks connected with primary track and used for passing, temporary storage, or loading and unloading of railway cars.

Show the following general case RAILWAYS based on the distance between the rails of the track:

Narrow Gauge	Less than 4-feet 8.5-inches.
Standard Gauge	4-feet 8.5-inches.

Show the number of RAILWAY tracks if there are more than 2 and the number of tracks is known. Do not show the number of tracks of incline and miniature RAILWAYS.

Delineation

The limit of a RAILWAY is the extent of the rails.

Depiction Conditions

If a RAILWAY provides a direct route through an area and is not a transit, incline, or miniature/amusement park railway,

Or

If a RAILWAY is a miniature/amusement park or an inclined railway and is ≥ 2.64 " (1 mile at 1:24,000 scale) in length,

Or

If a RAILWAY is a transit railway and is aboveground,

Or

If a RAILWAY is a siding, is outside of a RAILWAY YARD, is in an urban area, and is ≥ 0.25 " (500 feet at 1:24,000 scale) in length,

Or

If a RAILWAY is a siding, is outside of a RAILWAY YARD, and is not in an urban area,

Then show.

Source Interpretation Guidelines

All

If there are 2 or more primary tracks on the same roadbed for < 2.64 " (1 mile at 1:24,000 scale), show each separate instance of the RAILWAY.

If there are multiple primary tracks on the same roadbed for ≥ 2.64 " (1 mile at 1:24,000 scale), show only one instance of a RAILWAY down the centerline for all of the tracks and label the number of tracks.

If a RAILWAY coincides with a BRIDGE or ROAD, show the RAILWAY and the other feature.

Do not depict monorails as RAILWAYS. See MONORAIL.

Do not depict aerial tramways as RAILWAYS. See CABLEWAY (Built-Up theme).

Depict cog railways as incline railways.

Depict old railroad grades as TRAILS.

If an underpass occurs where a RAILWAY or ROAD cross over each other at different levels, break the lower feature to indicate the vertical relationship.

RAILWAY

A triple level stacking of features requires two underpasses; one on the middle feature, and the other on the bottom feature.

Do not show an underpass between a RAILWAY and a hydrographic feature, even if there is no separating structure. A RAILWAY is always assumed to be above the water body, never below it.

Graphic

A single track symbol on previously published maps denotes 1 track.

An unlabeled multiple track symbol on previously published maps denotes 2 tracks.

A multiple track symbol labeled with "n tracks" on previously published maps denotes "n" number of tracks.

A change in the number of multiple tracks on previously published maps may be marked by double cross ties.

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

RAILWAY

Symbolization

Characteristics	Symbol*	Label
General Case, Primary, Narrow Gauge	512.10 single track 512.12 multiple tracks	N/L
General Case, Primary, Standard Gauge	512.1 single track 512.3 multiple tracks 512.8 in highway 512.177 in road	N/L; Label "# TRACKS" if more than 2 tracks
General Case, Siding, Narrow Gauge	512.7 line 512.10 ticks	N/L
General Case, Siding, Standard Gauge	512.7	N/L
Incline Railway	512.24	INCLINE RAILWAY
Miniature	512.1	MINIATURE RAILWAY
Transit	512.1 single track 512.3 multiple tracks	Transit; Label "# TRACKS" if more than 2 tracks
Unspecified	512.1	N/L
* Show underpasses with symbol 512.20. Show the following symbols related to RAILWAYS: roundhouse (512.16), turntable (512.17), snowshed (512.19), bridge (512.21), drawbridge (512.21), tunnel (512.22), and ferry (512.23).		

RAILWAY YARD

RAILWAY YARD - An area provided with a system of tracks and associated structures, where railway trains are assembled, and railway cars are switched, stored or serviced.

Characteristics

Show the names of RAILWAY YARDS if they are known.

Delineation

The limit of a RAILWAY YARD is the point at which the multiple sidings diverge from the primary line at one end of the RAILWAY YARD, to the point at which the multiple sidings converge on the primary line, or terminate, at the other end of the RAILWAY YARD, and the outermost tracks.

Depiction Conditions

If a RAILWAY YARD contains 6 or more adjacent tracks, including sidings and primary tracks,
Then show.

Source Interpretation Guidelines

All

Do not show sidings in RAILWAY YARDS. Show the outermost tracks and the primary line.

Do not show open areas in RAILWAY YARDS.

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	512.6 lines 515B.1 fill	N/L; Show name if known

REST SITE

REST SITE - A roadside area usually having facilities for people and/or vehicles.

Characteristics

N/A

Delineation

The limit of a REST AREA is the extent of the roadside area that contains parking and open areas, including any associated buildings and structures.

Depiction Conditions

If a REST SITE is on a controlled access ROAD and the location and operation are controlled by the responsible highway authority,

Or

If a REST SITE is not on a controlled access ROAD, the location and operation are controlled by the responsible highway authority, and there are parking areas and other facilities such as picnic tables, fireplaces and/or shelters,

Then show.

Source Interpretation Guidelines

All

Depict wayside parks in Wisconsin as REST SITES.

For information on picnic areas that are depicted as parks, see PARK (Built-up theme.)

Graphic

If a picnic table symbol is symbolized and labeled "Roadside Park" on the previously published map, depict it as a REST SITE.

If a picnic table symbol is symbolized and labeled "Picnic Area" on the previously published map and it is along side a ROAD and not in a PARK (Built-up theme), depict it as a REST SITE.

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
Part 3: Transportation

REST SITE

Symbolization

Characteristics	Symbol*	Label
N/A	511.43 pulloff road 512.116 small	Rest Area
* Use symbol 512.116 if area is less than 0.01 square inches.		

ROAD - An open way for the passage of vehicles.

Characteristics

Show the following ROADS based on their design, weatherability, and governmental designation:

Primary Highway

(Class 1)

Hard-surface highways, including Interstate and U.S. numbered highways (including alternates), primary State routes, and all controlled access highways. Medians are shown on primary highways where they exist and are not wide enough to cause separate instances of roads.

Secondary Highway

(Class 2)

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. Medians are shown on secondary highways where they exist and are not wide enough to cause separate instances of roads.

Light-Duty Road

(Class 3)

Includes roads of unknown surface composition, hard-surface roads not included in a higher class, and improved, loose-surface roads (such as gravel or dirt) that are passable in all kinds of weather. These roads are adjuncts to the primary and secondary highway systems. Also included are important private roads, such as main logging or industrial roads, which serve as connecting links to the regular road network.

The surface composition of light-duty roads does not have to be known or specified for the feature to be shown.

Hard-surface light-duty roads are generally paved with concrete, asphaltic concrete, or bituminous

ROAD

macadam. They are waterproof and require a minimum amount of maintenance. Included are hard-surface campground and recreation area roads, which are subject to the requirements of the Highway Safety Act.

Improved, loose-surface roads are on a light foundation and include gravel or stone surface, or other stable material such as selected sand-clay, treated-oil gravel, or light tar-bound macadam. The roads are generally drained and graded, but the surface is not waterproof. Periodic maintenance is required. Included are gravel-surface streets, secondary county roads, service roads, Forest Highway, and Forest development roads. In Forests, these roads are occasionally used for snowmobile travel when closed to wheeled vehicle use by snow and are subject to the requirements of the Highway Safety Act.

Also included in this road class are improved dirt roads with stabilized soil and sand-clay surfaces. These roads are sometimes drained or graded. If the roads are maintained at all, continual maintenance is required. Included are tertiary county roads, service roads, and Forest development roads. These roads are usually single lane with turnouts, but may be double lane. In Forests, these roads may not be passable for all types of vehicles in wet or inclement weather conditions. They are frequently used for snowmobile travel when closed to wheeled vehicle use by snow and are subject to the requirements of the Highway Safety Act.

Unimproved Road
(Class 4)

Unimproved roads which are generally passable only in fair weather and used mostly for local

ROAD

traffic. Also included in this road class are driveways, regardless of their construction. In National Forests, these roads are considered to be Forest development roads. These roads are probably not passable for most types of vehicles in inclement weather conditions and mud holes are frequently encountered during most of the season of use. They are frequently used for snowmobile travel when closed to wheeled traffic by snow and are not subject to the requirements of the Highway Safety Act.

Four-Wheel Drive Road
(Class 5)

Unimproved roads passable only with 4-wheel-drive vehicles are considered very primitive and are intended for use only by 4-wheel drive high clearance vehicles. The road may appear to be two tracks. Generally, the width of the road will be 6 to 12 feet. The surface is rough and irregular with very rocky sections and/or deep ruts. These roads are not subject to the requirements of the Highway Safety Act.

Show the following ROADS based on their function or purpose:

General Case

Those that are in common use.

Overlook Access

A road that provides access to a pull-off area, having definite entrance and exit points.

Ramp

An inclined roadway connecting roads of differing levels.

Rest Area Access

Roads that provide access to service facilities such as service stations, weigh stations, comfort stations, and restaurants that are designed to serve users of highways.

Runaway Truck Ramp

A short inclined roadway constructed of sand or other unconsolidated material that exits

ROAD

gradually from and generally runs adjacent to the right lane of a descending highway, expressly for the purpose of stopping runaway trucks.

Traffic Circle A junction of roads that form circles around which traffic normally moves in one direction.

Turning Roadway A connecting roadway between two intersection legs that are at the same grade.

Show the following ROADS based on their access restrictions:

Private Private with restricted public use.

Restricted Public with restricted public use.

Toll Travel fee is collected at the entry or exit.

Unspecified Does not have to be known or specified for the feature to be shown.

Show the following ROADS based on their operational status:

Operational Usable and intended for use.

Under Construction Construction has begun but is not completed.

Show the following ROADS based on their positional accuracy:

Approximate Conditions permit the feature to be confidently positioned between 0.02" and 0.1" (40 feet and 200 feet at 1:24,000 scale) of its true ground position.

Definite Conditions permit the feature to be confidently positioned. Horizontal data are confidently positioned within 0.02" (40 feet at 1:24,000 scale), at map scale, of true ground position. Vertical data are confidently positioned within one-half contour interval of the true ground position.

ROAD

The relationships of the road classes to the function or purpose, access restrictions, operational status, and positional accuracy are as follows:

	Class 1	Class 2	Class 3	Class 4	Class 5
Function or Purpose	general case, ramp, traffic circle, turning roadway	general case, traffic circle, turning roadway	general case, overlook access, rest area access, traffic circle, turning roadway	general case, overlook access, rest area access, runaway truck ramp	general case
*Access Restrictions	toll, unspecified	toll, unspecified	private, restricted, unspecified	restricted, unspecified	restricted, unspecified
Operational Status	operational, under construction	operational	operational	operational	operational
Positional Accuracy	definite	definite	definite	approximate, definite	approximate, definite
* Show the access restrictions as unspecified on overlook accesses, ramps, rest area accesses, roads under construction, runaway truck ramps, traffic circles, and turning roadways.					

Delineation

The limit of a ROAD is the extent of the passage surface, excluding the shoulders and curbs.

Depiction Conditions

If a ROAD is a primary highway (class 1),

Or

If a ROAD is a secondary highway (class 2) or a light-duty road (class 3) and is operational,

Or

If a ROAD is an unimproved road (class 4) or an unimproved road passable only with 4-wheel-drive vehicles (class 5), is operational, and is $\geq 0.25''$ (500 feet at 1:24,000 scale) along the longest axis,

Or

If an unimproved road (class 4) or an unimproved road passable only with 4-wheel-drive vehicles (class 5), is operational, and is the only connection between two ROADS, or between a ROAD and a TRAIL,
Then show.

Source Interpretation Guidelines

All

Decisions about which roads to include on the maps should be based on the map specifications and on-the-ground conditions; not political issues (such as wilderness protection, RS 2477, or travel management).

Show light-duty (class 3) ROADS that cross over National Forest boundaries or administrative lines according to their surface composition. On "fringe" quadrangles, the surface composition of paved, gravel, or dirt should be extended to the first logical intersection; however, the surface composition can be extended as far as necessary, especially if the road is designated as a USDA Forest Service Route.

If a ROAD coincides with a BRIDGE, GATE, or RAILWAY, show the ROAD and the other feature.

Do not show public roads that are closed seasonally because of snow as restricted.

Show the overall widths of road symbols as follows:

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROAD

Road Width* (Feet)	Class 1 & 2 (No Median)	Class 1 & 2 (Median)	Class 3	Class 4	Class 5
≤ 45	0.02"	0.037"	0.02"	0.02"	0.02"
46-55	0.025"	0.037"	0.025"		
56-65	0.03"	0.037"	0.03"		
66-75	0.035"	0.037"	0.035"		
76-85	0.04"	0.04"	0.04"		
86-95	0.045"	0.045"	0.045"		
96-105	0.05"	0.05"	0.05"		
106-115	0.055"	0.055"	0.055"		
> 115	0.06"	0.06"	0.06"		

* If an overlook access or rest area access is a class 3 road, show the road with the minimum width symbol.
 Do not show minor variations in width on stretches of roads that are less than one-half mile in length.

Show roads under construction as such if the road is advanced enough in construction so that the position and configuration is established, can be determined by signature (scar) on the source photography, and is confirmed by State Highway Department detailed plans and profiles. When completed, the road must meet the criteria for a class 1 road.

If there is substantial evidence that paving is well underway for a road under construction, it may be shown as a completed road, regardless of its classification.

The road class of all traffic circles and turning roadways is consistent with the highest class of highway entering the traffic circle or attached to the turning roadway.

If an underpass occurs where a RAILWAY or ROAD cross over each other at different levels, break the lower feature to indicate the vertical relationship.

A triple level stacking of features requires two underpasses; one on the

middle feature, and the other on the bottom feature.

Do not show an underpass between a ROAD and a hydrographic feature, even if there is no separating structure. A ROAD is always assumed to be above the water body, never below it.

For information on road names and other route designators, see ROUTE.

Graphic

N/A

Symbolization

Characteristics	Symbol*	Label**
Class 1, General Case, Toll, Operational, Definite	511.10 road 511.11 w/median 521.1 fill	TOLL ROAD
Class 1, General Case, Unspecified, Operational, Definite	511.10 road 511.11 w/median 521.1 fill	N/L
Class 1, General Case, Unspecified, Under Construction, Operational, Definite	511.11 w/median 511.12 under construction 521.1 fill	UNDER CONSTRUCTION
Class 1, Ramp, Unspecified, Operational, Definite	511.10 road 511.13 ramp 521.1 fill	N/L
Class 1, Ramp, Unspecified, Under Construction, Definite	511.12 under construction 511.13 ramp 521.1 fill	UNDER CONSTRUCTION
Class 1, Traffic Circle, Unspecified, Operational, Definite	511.10 road 511.28 traffic circle 521.1 fill	N/L

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROAD

Characteristics	Symbol*	Label**
Class 1, Traffic Circle, Unspecified, Under Construction, Definite	511.12 under construction 511.28 traffic circle 521.1 fill	UNDER CONSTRUCTION
Class 1, Turning Roadway, Unspecified, Operational, Definite	511.10 road 521.1 fill	N/L
Class 1, Turning Roadway, Unspecified, Under Construction, Definite	511.12 under construction 521.1 fill	UNDER CONSTRUCTION
Class 2, General Case, Toll, Operational, Definite	511.10 road 511.11 w/median 521.2 fill	TOLL ROAD
Class 2, General Case, Unspecified, Operational, Definite	511.10 road 511.11 w/median 521.2 fill	N/L
Class 2, Traffic Circle, Unspecified, Operational, Definite	511.10 road 511.28 traffic circle 521.2 fill	N/L
Class 2, Turning Roadway, Unspecified, Operational, Definite	511.10 road 521.2 fill	N/L

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROAD

Characteristics	Symbol*	Label**
Class 3, General Case, Private, Operational, Definite	511.35 light-duty paved 516.27 fill (paved) 511.36 light-duty gravel 516.28 fill (gravel) 511.37 light-duty dirt 516.29 fill (dirt) 511.38 light-duty unspecified	PRIVATE
Class 3, General Case, Restricted, Operational, Definite	511.35 light-duty paved 516.27 fill (paved) 511.36 light-duty gravel 516.28 fill (gravel) 511.37 light-duty dirt 516.29 fill (dirt) 511.38 light-duty unspecified	RESTRICTED
Class 3, General Case, Unspecified, Operational, Definite	511.35 light-duty paved 516.27 fill (paved) 511.36 light-duty gravel 516.28 fill (gravel) 511.37 light-duty dirt 516.29 fill (dirt) 511.38 light-duty unspecified	N/L
Class 3, Overlook Access, Unspecified, Operational, Definite	511.43 road	Overlook

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROAD

Characteristics	Symbol*	Label**
Class 3, Rest Area Access, Unspecified, Operational, Definite	511.43 road	N/L; See REST SITE for label
Class 3, Traffic Circle, Unspecified, Operational, Definite	511.35 light-duty paved 516.27 fill (paved) 511.36 light-duty gravel 516.28 fill (gravel) 511.37 light-duty dirt 516.29 fill (dirt) 511.38 light-duty unspecified	N/L
Class 3, Turning Roadway, Unspecified, Operational, Definite	511.35 light-duty paved 516.27 fill (paved) 511.36 light-duty gravel 516.28 fill (gravel) 511.37 light-duty dirt 516.29 fill (dirt) 511.38 light-duty unspecified	N/L
Class 4, General Case, Restricted, Operational, Approximate	511.39 unimproved	RESTRICTED, APPROXIMATE
Class 4, General Case, Restricted, Operational, Definite	511.39 unimproved	RESTRICTED
Class 4, General Case, Unspecified, Operational, Approximate	511.39 unimproved	APPROXIMATE

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROAD

Characteristics	Symbol*	Label**
Class 4, General Case, Unspecified, Operational, Definite	511.39 unimproved	N/L
Class 4, Overlook Access, Unspecified, Operational, Approximate	511.39 unimproved	Overlook, APPROXIMATE
Class 4, Overlook Access, Unspecified, Operational, Definite	511.39 unimproved	Overlook
Class 4, Rest Area Access, Unspecified, Operational, Approximate	511.39 unimproved	APPROXIMATE; See REST SITE for label
Class 4, Rest Area Access, Unspecified, Operational, Definite	511.39 unimproved	N/L; See REST SITE for label
Class 4, Runaway Truck Ramp, Unspecified, Operational, Approximate	511.39 unimproved	APPROXIMATE
Class 4, Runaway Truck Ramp, Unspecified, Operational, Definite	511.39 unimproved	N/L
Class 5, General Case, Restricted, Operational, Approximate	511.40 4-wheel drive	4WD, RESTRICTED, APPROXIMATE
Class 5, General Case, Restricted, Operational, Definite	511.40 4-wheel drive	4WD, RESTRICTED
Class 5, General Case, Unspecified, Operational, Approximate	511.40 4-wheel drive	4WD, APPROXIMATE

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROAD

Characteristics	Symbol*	Label**
Class 5, General Case, Unspecified, Operational, Definite	511.40 4-wheel drive	4WD
<p>* Show underpasses with symbol 511.14. Show the following symbols related to ROADS: highway or road bridge, highway or road drawbridge (511.15); road tunnel, highway tunnel without median, highway tunnel with median (511.16); highway or road tunnel wing and cross tick (511.17); highway island (511.19); highway on dam (511.20); highway or road ferry (511.24); tollgate (511.26); road block, berm, or barrier (511.44); highway or road snowshed (511.27); cul-de-sac (511.42); ford (511.48); dam carrying road (512.37); and one-way arrow (524.3).</p> <p>** See ROUTE for information on road names and other route designators.</p>		

ROAD BLOCK/BERM/BARRIER

ROAD BLOCK/BERM/BARRIER - An obstruction placed across a road to block passage.

Characteristics

N/A

Delineation

The limit of a ROAD BLOCK/BERM/BARRIER is the extent of the structure.

Depiction Conditions

Show all.

Source Interpretation Guidelines

All

N/A

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
N/A	511.44	N/L

ROUTE - A designated path through a road network.

Characteristics

Show the following ROUTES:

County Route

Interstate Officially designated as part of the Interstate System.

State Route

USDA Forest Service

U.S. Numbered

Show the following USDA Forest Service ROUTES:

High Clearance Passable only by high clearance vehicles.

Primary Main through routes suitable for passenger cars.

Secondary Ancillary routes suitable for passenger cars.

Show the following county route, Interstate, State route, and U.S. numbered ROUTES:

Alternate

Business

Bypass

Connector

Loop

Not Applicable The characteristic does not apply.

Spur

Truck

ROUTE

Unspecified Does not have to be known or specified for the feature to be shown.

Show the names of ROUTES if they apply and are known.

Delineation

The limit of a ROUTE is the set of one or more, usually continuous, components of the designated or named path.

Depiction Conditions

If a ROUTE has a county, USDA Forest Service, Interstate, State, or U.S. designation,

Or

If a ROUTE is composed of a major or well-known road in an urban area and is named,

Or

If a ROUTE is composed of a well-known named or posted road in a rural area,
Then show.

Source Interpretation Guidelines

All

In Missouri and Wisconsin, the lettered county routes are considered part of the State secondary highway system. Show these lettered designators with State highway shields.

Do not show route types (alternate, business, bypass, etc.) on USDA Forest Service route designator shields.

Do not show the route name on rural roads if a route designator shield applies and is shown.

Route names can be shown on well-known urban roads, even though a route designator shield applies and is shown.

The names of designated expressways, turnpikes, streets in urban areas, and well-known or posted roads in rural areas can be shown. The name of the route can also be shown if it is an historical name that is required to preserve continuity of the route.

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
Part 3: Transportation

ROUTE

ROUTE designator shields do not apply to access roads, ramps, turning roadways, and other associated structures, unless they provide the only through-route continuity.

A designated ROUTE may not be continuous. There can be gaps, for instance, when a named street is interrupted by a large building, or a highway is interrupted by a park (i.e., U.S. 89 and Yellowstone Park), or parallel components of a route are separated by a divided highway.

Graphic

N/A

Symbolization

Characteristics	Symbol*	Label**
County Route, Alternate	524.1 MO and WI 524.4	ALT; Show number (letter in MO and WI)
County Route, Business	524.1 MO and WI 524.4	BR; Show number (letter in MO and WI)
County Route, Bypass	524.1 MO and WI 524.4	BYP; Show number (letter in MO and WI)
County Route, Connector	524.1 MO and WI 524.4	CONN; Show number (letter in MO and WI)
County Route, Loop	524.1 MO and WI 524.4	LOOP; Show number (letter in MO and WI)
County Route, Not Applicable	524.1 MO and WI 524.4	N/L; Show number (letter in MO and WI)
County Route, Spur	524.1 MO and WI 524.4	SPUR; Show number (letter in MO and WI)
County Route, Truck	524.1 MO and WI 524.4	TR; Show number (letter in MO and WI)
County Route, Unspecified	524.1 MO and WI 524.4	N/L; Show number (letter in MO and WI)
Interstate, Alternate	524.1	ALT; Show number
Interstate, Business	524.1	BR; Show number

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROUTE

Characteristics	Symbol*	Label**
Interstate, Bypass	524.1	BYP; Show number
Interstate, Connector	524.1	CONN; Show number
Interstate, Loop	524.1	LOOP; Show number
Interstate, Not Applicable	524.1	N/L; Show number
Interstate, Spur	524.1	SPUR; Show number
Interstate, Truck	524.1	TR; Show number
Interstate, Unspecified	524.1	N/L; Show number
State Route, Alternate	524.1	ALT; Show number
State Route, Business	524.1	BR; Show number
State Route, Bypass	524.1	BYP; Show number
State Route, Connector	524.1	CONN; Show number
State Route, Loop	524.1	LOOP; Show number
State Route, Not Applicable	524.1	N/L; Show number
State Route, Spur	524.1	SPUR; Show number
State Route, Truck	524.1	TR; Show number
State Route, Unspecified	524.1	N/L; Show number
U.S. Numbered, Alternate	524.1	ALT; Show number
U.S. Numbered, Business	524.1	BR; Show number
U.S. Numbered, Bypass	524.1	BYP; Show number
U.S. Numbered, Connector	524.1	CONN; Show number
U.S. Numbered, Loop	524.1	LOOP; Show number
U.S. Numbered, Not Applicable	524.1	N/L; Show number
U.S. Numbered, Spur	524.1	SPUR; Show number
U.S. Numbered, Truck	524.1	TR; Show number

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
 Part 3: Transportation

ROUTE

Characteristics	Symbol*	Label**
U.S. Numbered, Unspecified	524.1	N/L; Show number
USDA Forest Service, High Clearance	524.7	N/L; Show number
USDA Forest Service, Primary	524.5	N/L; Show number
USDA Forest Service, Secondary	524.6	N/L; Show number
* See ROAD for symbol. ** Show name if applicable and known.		

RUNWAY/APRON/TAXIWAY

RUNWAY/APRON/TAXIWAY - An area on land used by aircraft for takeoff, landing, parking or access to runways.

Characteristics

Show the following RUNWAY/APRON/TAXIWAYS based on their operational status:

Abandoned	Intact but are not maintained or intended for use.
-----------	--

Operational	Usable and intended for use.
-------------	------------------------------

Under Construction	Construction has begun but is not completed.
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Show the following RUNWAY/APRON/TAXIWAYS based on the state or condition of the surface:

Not Paved	All surfaces other than asphalt or concrete.
-----------	--

Paved	Surface of asphalt or concrete.
-------	---------------------------------

Unspecified	Does not have to be known or specified for the feature to be shown.
-------------	---

Show the names of RUNWAY/APRON/TAXIWAYS if they are known.

Delineation

The limit of a RUNWAY/APRON/TAXIWAY is the extent of the area used for landing, takeoff, parking, or runway access.

Depiction Conditions

If a RUNWAY/APRON/TAXIWAY surface is paved,

Or

If a RUNWAY/APRON/TAXIWAY is a runway, the surface is not paved, and it is permanent,

Then show.

Source Interpretation Guidelines

All

Depict the state or condition of the surface as unspecified if the RUNWAY/APRON/TAXIWAY is under construction. Otherwise, the state or condition is not paved or paved.

RUNWAY/APRON/TAXIWAY

Do not depict seaplane runways as RUNWAY/APRON/TAXIWAYS. See LANE.

Do not depict seaplane ramps as RUNWAY/APRON/TAXIWAYS. See LAUNCHING RAMP (Built-Up theme).

Do not show model airplane runways.

Graphic

On 1:24,000-scale maps made before the middle of the 1980's, and starting again in 1994, RUNWAY/APRON/TAXIWAYS are generally outlined with a black line. The black line is solid if the RUNWAY/APRON/TAXIWAY is paved and the black line is dashed if the RUNWAY/APRON/TAXIWAY is unpaved.

On 1:24,000-scale maps made from the middle of the 1980's to 1994, the areas covering runways and paved landing strips are symbolized with a screened black line, while the outline of aprons and taxiways are shown with a solid black line. Unpaved landing strips are shown with a dashed black line.

Symbolization

Characteristics	Symbol	Label*
Abandoned, Not Paved	511.30	LANDING STRIP (ABANDONED)
Abandoned, Paved	511.31	LANDING STRIP (ABANDONED)
Operational, Not Paved	511.30	LANDING STRIP
Operational, Paved	511.31	LANDING STRIP
Under Construction, Unspecified	Color: Black Lineweight: 0.003" Dash Length: 0.1" Dash Spacing: 0.02" Line Spacing: 0.02"	LANDING STRIP (UNDER CONSTRUCTION)
* If RUNWAY/APRON/TAXIWAY is within an AIRCRAFT FACILITY, do not show a label or name; show the operational status but do not show the parentheses.		

SCENIC BYWAY

SCENIC BYWAY - A designated road with a scenic corridor which has aesthetic, cultural, or historic value.

Characteristics

Show the names of SCENIC BYWAYS.

Delineation

The limit of a SCENIC BYWAY is the extent of the designated road.

Depiction Conditions

If a ROAD is designated as a National Scenic Byway or All-American Road by the U.S. Department of Transportation, or a Scenic Byway by the USDA Forest Service, Then show the name.

Source Interpretation Guidelines

All

N/A

Graphic

N/A

Symbolization

Characteristics	Symbol*	Label
N/A	524.11 name	N/L; Show name
* See ROAD for symbol.		

TRAFFIC INSPECTION FACILITY

TRAFFIC INSPECTION FACILITY - An area having facilities to examine pedestrian and vehicular traffic and/or cargo.

Characteristics

Show the following TRAFFIC INSPECTION FACILITIES:

Agricultural Inspection For the inspection of agricultural products by State or Federal officials.

Customs For the enforcement of customs laws by the United States Customs Service.

Weigh For weighing of trucks by State highway authority.

Show the following customs TRAFFIC INSPECTION FACILITIES:

Customs Station For the carrying out of customs duties as defined by the Code of Federal Regulations No. 19.

Port of Entry For the carrying out of customs duties and other jurisdictional responsibilities as defined by the Code of Federal Regulations No. 19.

Delineation

The limit of a TRAFFIC INSPECTION FACILITY is the extent of the area used for the inspection, including any structures and parking areas.

Depiction Conditions

Show all.

Source Interpretation Guidelines

All

The identification of a customs facility as a customs station or port of entry is designated by law in the Code of Federal Regulations No. 19.

Graphic

N/A

TRAFFIC INSPECTION FACILITY

Symbolization

Characteristics	Symbol	Label
Agricultural Inspection	511.43 pulloff road	Agricultural Inspection Station
Customs, Customs Station	511.43 pulloff road	U.S. Customs
Customs, Port of Entry	511.43 pulloff road	Port of Entry
Weigh	511.43 pulloff road	Weigh Station

TRAIL

TRAIL - A cleared path, beaten track, or improved surface, as through woods or wilderness, not usually trafficked by vehicles because of width, seasonal conditions, or access restrictions.

Characteristics

Show the following TRAILS based on their official trail designation:

Historic

Recreation

Scenic

Unspecified

Does not have to be known or specified for the feature to be shown.

Show the numeric designations and names of TRAILS if they apply and are known.

Delineation

The limit of a TRAIL is the extent of the traveled path.

Depiction Conditions

If a TRAIL is maintained for public use and is ≥ 1.0 " (2,000 feet at 1:24,000 scale) along the longest axis,

Or

If a TRAIL is used for portage and is ≥ 0.25 " (500 feet at 1:24,000 scale) along the longest axis,

Or

If a TRAIL is the only connection between two TRAILS, two ROADS, or a ROAD and a TRAIL,

Or

If a TRAIL is named,

Or

If a TRAIL is the only access to another feature that is shown and is ≥ 0.25 " (500 feet at 1:24,000 scale) along the longest axis,

Then show.

Source Interpretation Guidelines

All

Do not depict 4-wheel-drive roads as TRAILS. See ROAD.

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
Part 3: Transportation

TRAIL

Depict old railroad grades as unspecified TRAILS.

Do not show old railroad grades in BUILT-UP AREAS (Built-up theme).

Graphic

If a trail symbol is labeled "Old Railroad Grade" on the previously published map, depict it as a TRAIL.

Symbolization

Characteristics	Symbol	Label
Historic	522.6	N/L; Show name and "NATIONAL HISTORIC TRAIL"
Recreation	522.6	N/L; Show name and "NATIONAL RECREATION TRAIL"
Scenic	522.6	N/L; Show name and "NATIONAL SCENIC TRAIL"
Unspecified	511.41	N/L; Label old railroad grades "OLD RAILROAD GRADE"; Show Forest Service identifier number and/or name if known

TUNNEL - An underground or underwater passage.

Characteristics

Show the names of TUNNELS if they are known.

Delineation

The limit of a TUNNEL is the walls of and openings to the passage.

Depiction Conditions)

If a TUNNEL provides passage for a transportation feature and does not provide passage for a railway transit system,
Then show.

Source Interpretation Guidelines

All

Do not depict structures that only provide a separation of grade between any combination of RAILWAYS, ROADS, RUNWAY/APRON/TAXIWAYS, or TRAILS as TUNNELS. The lower feature should instead be broken to indicate the vertical relationship.

Do not depict tunnels that provide passage for a railway transit system as TUNNELS. See TUNNEL ENTRANCE.

If there are two TUNNEL passages and the overall width is < 0.05" (100 feet at 1:24,000 scale), show them as one TUNNEL.

If there are two TUNNEL passages and the separation between the passages is < 0.01" (20 feet at 1:24,000 scale), show them as one TUNNEL.

Graphic

N/A

Standards for USGS and USDA Forest Service Single Edition Quadrangle Maps
Part 3: Transportation

TUNNEL

Symbolization

Characteristics	Symbol	Label
N/A	511.16 highway w/median 511.16 highway w/o median 511.17 highway or road wing and cross tick 512.22 railroad	N/L; Show name if known

TUNNEL ENTRANCE

TUNNEL ENTRANCE - Opening that affords entry to an underground or underwater passage.

Characteristics

Show the following TUNNEL ENTRANCES:

Air Ventilation To admit fresh air.

General Case Those that are in common use.

Delineation

The limit of a TUNNEL ENTRANCE is the extent of the opening.

Depiction Conditions

If a TUNNEL ENTRANCE is associated with a tunnel that provides passage for a railway transit system,

Or

If a TUNNEL ENTRANCE is associated with an air ventilation shaft,
Then show.

Source Interpretation Guidelines

All

If a TUNNEL ENTRANCE is associated with a railway transit system, show the TUNNEL ENTRANCE but do not show a TUNNEL.

Graphic

N/A

Symbolization

Characteristics	Symbol	Label
Air Ventilation	512.72	Air Shaft
General Case	512.22 wing and cross tick	N/L

TURNTABLE

TURNTABLE - A rotating platform with railway tracks used for turning locomotives or cars.

Characteristics

N/A

Delineation

The limit of a TURNTABLE is the extent of the rotating platform.

Depiction Conditions

Show all.

Source Interpretation Guidelines

All

Do not depict roundhouses as TURNTABLES. See BUILDING (Built-up theme).

Graphic

N/A

Symbolization

Characteristics	Symbol*	Label
N/A	512.17	N/L
* Roundhouses (512.16) are often associated with turntables.		