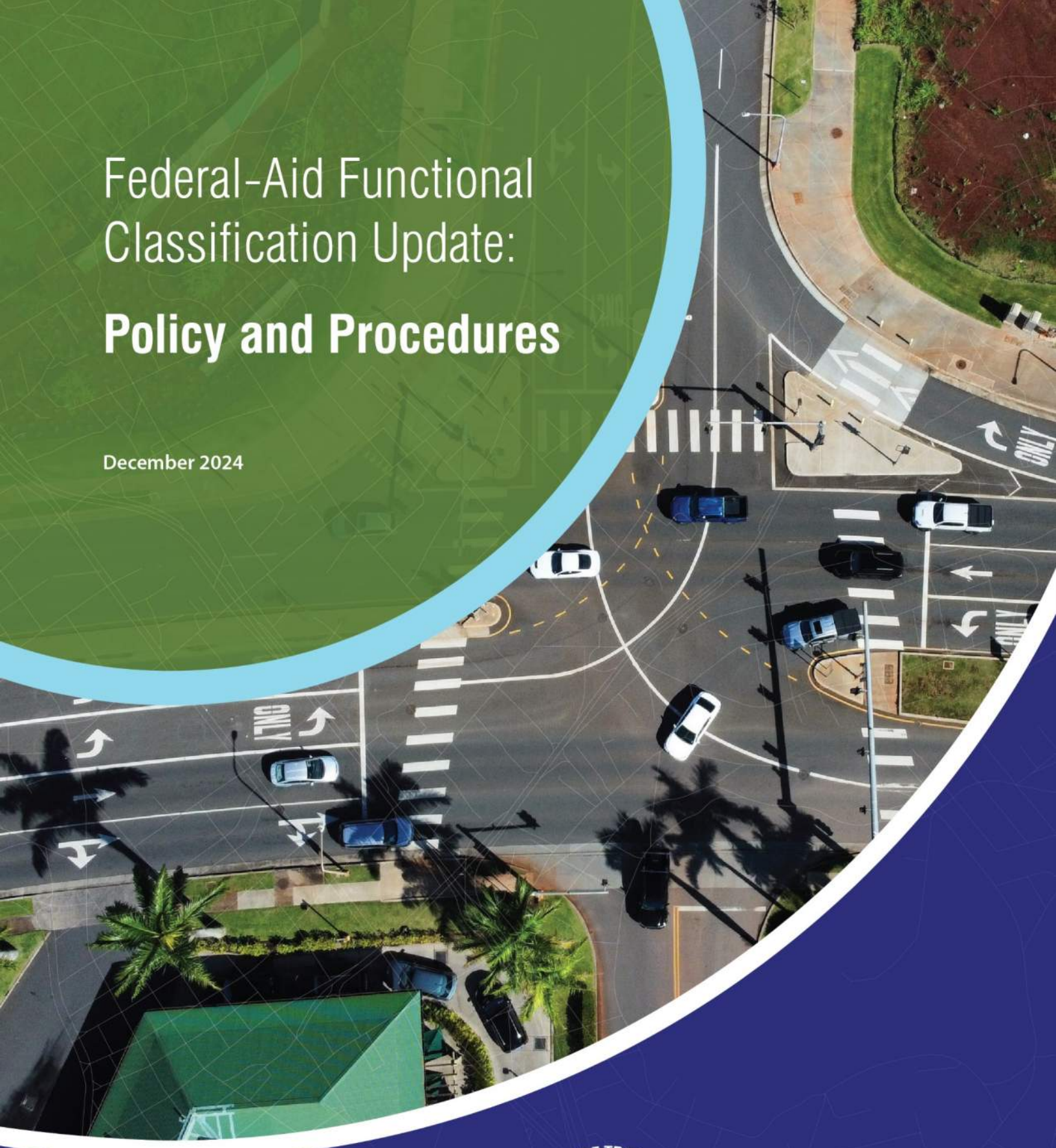
# Federal-Aid Functional Classification Update:

# Policy and Procedures

December 2024




Prepared for:

State of Hawai'i
Department of Transportation
Highways Planning Branch

U.S. Department of Transportation
**Federal Highway Administration**

**Hawaii Federal-Aid Division**

June 25, 2025

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In Reply Refer To:
HDA-HI

Edwin H. Sniffen
Director of Transportation for Highways
Hawaii Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

Subject: 2024 Functional Classification Update

Dear Mr. Sniffen,

Thank you for your letter, HWY-PS 24-2.35182, dated December 13, 2024.

The Federal Highway Administration (FHWA) has reviewed the letter and the proposed functional classification described in the report, as well as the GIS shapefiles received on June 4, 2025.

As a result of our review, we find that the functional classification is consistent with 23 CFR 470.105 and the FHWA's Functional Classification Guidelines. With this approval, the updated functional classification serves as the official record for Federal-aid highways.

If you have any questions, please contact Amy Ford-Wagner at (808) 541-2325 or amy.ford-wagner@dot.gov.

Sincerely,

Richelle M Takara
Digitally signed by RICHELLE M TAKARA
Date: 2025.06.26 08:08:44 -10'00'

Richelle M. Takara, P.E.
Division Administrator

Cc: Patrick Tom, Project Manager
Robin Shishido, HDOT Deputy Director
Larry Dill, HDOT HWY

# FEDERAL-AID FUNCTIONAL CLASSIFICATION UPDATE

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**APPENDICES**

Federal-Aid Functional Classification Update:

**Policy and Procedures**

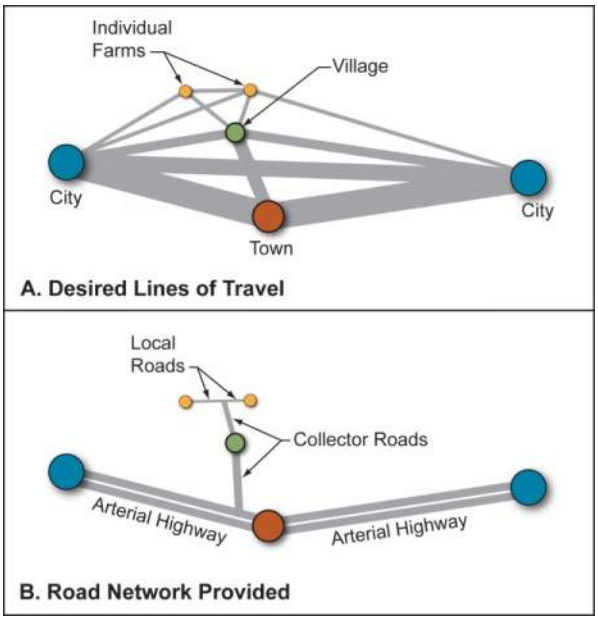
# Background

The State of Hawai'i is updating the urban boundary and functional classifications of Statewide highways to reflect changes in population and employment growth and travel patterns that have occurred since the last update in 2012. Since 2012 each county in Hawai'i has experienced substantial changes in population, density, land use boundary amendments, subdivisions, and development. All of these aspects can affect urban boundaries and the functional classification of the highway network, and the Hawai'i Department of Transportation (HDOT) has started a process to re-evaluate and update those designations.

This Functional Classification Update Policy and Procedures memo outlines the procedures for the functional classification update process. A separate memo documenting the procedures for the Urban Boundary update has already been created. The procedures described below are consistent with federal guidance, however, it should be noted that much of the guidance is general, and States have flexibility when determining the criteria for functional classifications changes and updates.

Functional classification is the grouping of streets and highways into classes, or systems, according to the character of service they are intended to provide. All highways in the United States are functionally classified using a common nomenclature, to provide a consistently-defined roadway network across the country. Federal functional classifications are determined by State Departments of Transportation (DOT) (in conjunction with local agencies) based on criteria established by the Federal Highway Administration (FHWA). Functional classification defines the nature of how travel can be channelized within a network in a logical and efficient manner by defining the part that any particular road or street should play in serving the flow of trips through a highway network. FHWA must ultimately approve the classifications. Functional classification is used for planning, design, budgeting, programming and fiscal management.

**CHANNELIZATION OF TRIPS**



The federal functional classifications[1] include:

**Principal arterials:**

- Interstate
- Other Freeways and Expressways (OF&E)
- Other Principal Arterials (OPA)

**Other types of roadways:**

- Minor Arterial
- Major Collector
- Minor Collector
- Local

***Federal-aid highway systems*** include the National Highway System and the Dwight D. Eisenhower National System of Interstate and Defense Highways (the "Interstate System")[2]; the Interstate System is a subset of the National Highway System. ***Federal-aid highways*** include highways on the Federal-aid highway systems and all other public roads ***not federally classified as local roads or rural minor collectors[3].*** Federal functional classification determines the eligibility for some FHWA funding categories. Roads functionally classified as local streets or minor collectors (not part of the Federal-aid Highway System) are not normally eligible for Surface Transportation Block Grant Program (STBG) funds.

Federal policy directs State DOTs to establish a classification of roads, based on function, so that roadways can be improved appropriately as funding opportunities arise. Therefore, functional classification is used in determining Federal, State, regional and local priorities for roadway resurfacing or reconstruction.

Although FHWA does not provide specific policy that designates or mandates particular functional service characteristics, examples of characteristics that States commonly use as criteria to distinguish functional classifications can include but are not limited to: traffic volume, mobility and access standards, corridor length, land use, activity centers, through traffic, vehicle speed, and non-motorized access. This Policy and Procedures memo will document the specific criteria that would be applied during the functional classification update process.

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[1] Per FHWA's document titled Highway Functional Classification Concepts, Criteria and Procedures 2023 Edition, dated February, 2023, FHWA policy has normalized the concepts of urban boundaries and functional classification to improve consistency. Normalization here means simplifying the functional classification so that a roadway is classified with one meaning while urban/rural is a separate context in which the road is located.

[2] As defined under Title 23, Code of Federal Regulations (CFR), Part 470.103

[3] As defined under Title 23, United States Code (U.S.C.), Section 101(a)(6)

## Functional Classifications in Hawai‘i

Currently the functional classification system in Hawai‘i is divided into rural and urban designations, and includes interstates (on O‘ahu), other freeways and expressways, principal and minor arterials, and major and minor collectors. Hawai‘i’s existing functional classification system is fairly similar to that of the rest of the United States; however, due to island geography and topography, Hawai‘i relies on belt roads around the islands much more than the mainland. This reliance and constrained geography may increase traffic on roadways designated as arterials. Being the primary road, the arterials also serve as collectors and local roads with small roads and driveways connecting directly to the principal arterial. Conversely there may be roads on small islands or in other areas that are isolated from the remaining parts of the State. These roads may not meet the specific criteria for a given classification, but still operate as an arterial or collector. With the 2012 update Hawai‘i revised its functional classification system to match the FHWA designations.

With this Functional Classification Update, the federal functional classifications will continue to be used with the designation of urban and rural. The most recent Federal-Aid Urban Boundary shall be used to determine whether the roadway falls under the urban or rural functional classification.

## Functional Classification Update Process

The proposed Functional Classification Update process included here is consistent with FHWA’s *Functional Classification Guidelines*, including the *Highway Functional Classification Concepts, Criteria and Procedures 2023 Edition*, which is included as Appendix A. This process will be used for this Functional Classification 2024 update, but it is developed in a way that it could also be used for future revisions, or revision submittals from local jurisdictions such as counties and cities. An application and process for future revisions is described later in this section.

The functional classification update will include the following steps, which are described in greater detail below:

(1) Review urban boundary analysis results

(2) Map current functional classifications over adjusted urban boundary maps

(3) Review current Functional Classification data based on criteria

(4) Map traffic generators

(5) Review areas where land use or travel patterns have changed since 2012

(6) Apply criteria from Step 3 for classification of Arterials, Collectors or Local Roads per Highway Functional Classification Guidelines; and classify network

(7) Develop functional classification justification report

(8) Obtain concurrence of local governments where applicable

(9) Obtain concurrence and acceptance of HDOT

(10) Submittal to FHWA Division Office for approval

**STEP 1. Review urban boundary analysis results**

The urban boundary update will be completed in conjunction with the statewide functional classification update. The urban boundary analysis will show areas that have been developed, annexed or modified and could influence functional classification updates. Important aspects of changing urban boundaries to consider are changes in travel patterns or traffic conditions that may have changed based on land use and development, which will be indicated by urban boundary changes.

**STEP 2. Map current functional classifications over adjusted urban boundary maps**

Mapping the current functional classifications over the adjusted urban boundary maps will give a clear picture of where the urban designations have changed and will illustrate where existing functional classifications may no longer be appropriate.

**STEP 3. Review current Functional Classification data based on criteria**

The following criteria were used in the 2012 update and are proposed for this functional classification update.

The criteria and explanations are as follows (additional information and criteria are provided in Appendix C):

- *Type and magnitude of travel generators.* Travel generators are facilities that create or attract vehicular traffic. There are a number of generators, and a more detailed description of each type of generator is included in Appendix C:
  - Population Generators - urbanized or urban area, city, or town.
  - Recreational Generators - these are generators used for leisure time and for recreational and cultural purposes.
  - Industrial Generators - primarily manufacturing and material and goods processing.
  - Commercial Generators - central business districts, shopping centers, airports, port and railway, warehousing, and terminals.
  - Governmental Generators - these include military bases, colleges, universities, governmental administrative complexes, and others.

- *Route feasibility and directness of travel.* This should be considered when there are multiple routes between areas. The route that carries more traffic should have a higher designation. Because most State roads on the neighbor islands are the only route available, this criterion is most applicable on O'ahu and in the larger towns.
- *Traffic characteristics and trip length.* Traffic characteristics are associated with trip purpose, obtained from origin-destination studies, or the service the route is intended to provide. Higher classifications are used for longer interstate travel.
- *Spacing between types of functional classes.* In rural areas, spacing of principal and minor arterials is dictated by travel demand, but in urban areas, spacing is less to accommodate traffic flow in the central business district and between the various generator areas in the urban area. In Hawai'i, there are few routes and many roadways have topographic constraints.
- *Continuity of various functional classes.* Principal and minor arterial functional classifications should be continuous unless geographical or topographical constraints dictate otherwise. Urban collectors and rural major collectors should also be continuous, but continuity is not necessary for rural minor collectors.
- *Multiple service capability.* The ability of the roadway to accommodate other modes of transportation on the same facilities without a significant impact on normal traffic flow.
- *Relationships of functional classes to transportation plan(s)*. This is appropriate where transportation plans have been developed.
- *Miles and travel classification control values.* Miles by functional class and travel by functional class. This is not meant to restrict travel within an area, but provide parameters. These are reported as percentages of VMT and miles.
- *Access Spacing.* Higher order roadways (arterials, major collectors) place more emphasis on the through movement with more restricted local access, while local roads exist to primarily provide local access instead of through movement.
- *Integration of classifications of adjoining jurisdictions.* Integration ensures that the transportation network makes sense as a whole, instead of being a mosaic of individual classifications that are not connected.

**STEP 4. Map traffic generators**

This step includes information gathered in the criteria section above. High origin or destination areas (described in the type and magnitude of travel generators criterion in Step 3 above), and any other known traffic generators such as stadiums, ports, military bases, etc. will be reviewed.

**STEP 5. Review areas where land use or travel patterns have changed**

This step requires a review of the travel demand model for trip generator locations, freight route locations, truck percentages, annual average daily traffic (AADT) or peak demand, connectivity, and

trip type. The last update of the functional classification was in 2012, and many land uses have changed since then. This will provide information on where functional classifications may need to be updated. For individual updates after the general Statewide update has been completed, the functional classification justification process will begin with this step and continue with the process as it is described below.

**STEP 6. Apply criteria from step 3**

Review all of the criteria to the specific location or network and determine where changes are warranted.

**STEP 7. Develop functional classification justification report**

Complete the application found in Appendix D, include maps and location information and any data gathered to address criteria in Step 3. Appendix E provides an example of a sample application. As needed, the HDOT will assign a new route number for any additions to the federal-aid system using the route numbering guidelines in Appendix G.

**STEP 8. Obtain concurrence of local governments**

Local counties and/or Metropolitan Planning Organization (MPO) should provide the HDOT with a letter that indicates their concurrence with the justification report. Examples of concurrence letters can be found in Appendix E. Concurrence represents a local jurisdiction's agreement with the proposed change. The City, Counties, Maui MPO, and O'ahu MPO are the only local governments that need to provide concurrence. Concurrence can be reflected by the local jurisdiction's participation in a decennial census update or a local jurisdiction's request for the boundary change.

For the November 2024 update, the HDOT will engage and consult with the Sub-Statewide Transportation Advisory Committee (SubSTAC), which consists of members from the HDOT, Department of Health, Department of Business, Economic Development, and Tourism, Oahu MPO, Maui MPO, FHWA, FAA, City and County of Honolulu, County of Kaua'i, County of Maui, and County of Hawai'i.

*The justification of changes, new road lists, and maps to the federal-aid system will be included in future appendices.*

**STEP 9. Obtain concurrence and acceptance of HDOT**

HDOT is responsible for the Statewide highways in Hawai'i. They must be in concurrence and accept any functional classification update or change proposed by the city, county, Maui MPO, or O'ahu MPO.

**STEP 10. Submittal to FHWA Division Office for approval**

The final application package is submitted by the HDOT to the FHWA Division Office for approval. A flow chart of the application revision process is included in Appendix F.

# Appendix A
# Highway Functional Classification Concepts, Criteria and Procedures 2023 Edition

FHWA

# Highway Functional Classification Concepts, Criteria and Procedures 2023 Edition

February 2023

U.S. Department of Transportation
Federal Highway Administration

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# SECTION 1. INTRODUCTION

The *Highway Functional Classification: Concepts, Criteria and Procedures, 2023 Edition*, describes the procedures and processes for assigning functional classifications to roadways and adjusting urban area boundaries. This document builds upon and modifies prior guidance documents.

Our nation's roadway system is a vast network that connects places and people within and across national borders. Planners and engineers have developed elements of this network with particular travel objectives in mind. These objectives range from serving long-distance passenger and freight needs to serving neighborhood travel from residential developments to nearby shopping centers. The functional classification of roadways defines the role each element of the roadway network plays in serving these travel needs.

Over the years, functional classification has come to assume additional significance beyond its purpose as a framework for identifying the role of a roadway in moving vehicles through a network of highways. Functional classification carries with it expectations about roadway design, including its speed, capacity and relationship to existing and future land use development. Federal legislation continues to use functional classification in determining eligibility for funding under the Federal-aid program. Transportation agencies describe roadway system performance, benchmarks and targets by functional classification. As agencies continue to move towards a more performance-based management approach, functional classification will be an increasingly important consideration in setting expectations and measuring outcomes for preservation, mobility and safety.

As a result of the decennial census, the US Census Bureau issues urban area boundary maps. Transportation agencies should review these census boundaries and either accept them as is or adjust them for transportation planning purposes.

This guidance document provides recommended practices for assigning functional classifications and adjusting urban area boundaries concerning roadways that Federal, State and local transportation entities own and operate. Assigning functional classifications and adjusting urban area boundaries requires work elements common to many large-scale business enterprises: there are technical methods and tools to create an efficient and cost-effective end product; there are also procedural elements that require coordination and negotiation across agencies and individuals. This guidance document encompasses both of these elements.

This guidance document also recognizes and describes the implications of how our roadway systems are configured, used and planned for today:

- The Federal-aid system has matured significantly. A significant proportion of new functional classification designations are likely to occur from improvements and modifications to existing roads and corridors, rather than from designations on new roadways and corridors.

- In conducting functional classification updates, State departments of transportation (DOTs) strive for consensus with potentially dozens of agencies, including metropolitan and rural planning agencies, local officials and FHWA Division Offices.
- Geospatial technologies and travel demand forecasting capabilities have advanced significantly, greatly lowering the cost of data storage and increasing analysis capabilities.
- Planners and engineers have expanded roadway design options significantly, especially in areas where providing for non-motorized travel is a priority. Transportation agencies have developed their own classification terms to describe these options.

## 1.1 Overview

This guidance document builds upon and updates the three most recent guidance documents circulated by FHWA, namely:

- Highway Functional Classification: Concepts, Criteria and Procedures, March 1989
- Updated Guidance for the Functional Classification of Highways Memorandum, October 14, 2008[1]
- Highway Functional Classification: Concepts, Criteria and Procedures, 2013

1. All functional classification categories exist in both urban and rural areas. Specifically, all Principal Arterial sub-categories and all Collector sub-categories are recognized in both urban and rural forms. The following functional classification categories should be used:

    a. Principal Arterial
        i. Interstate
        ii. Other Freeways & Expressways (OF&E) (**Figure 1-1**)
        iii. Other (OPA)
    b. Minor Arterial
    c. Collector
        i. Major Collector
        ii. Minor Collector
    d. Local

*Figure 1-1: Principal Arterial - Other Freeways & Expressways*

*Source: Ohio Statewide Imagery Program*

2. States should assign functional classifications according to how the roadway is functioning in the current year only. Regarding future routes, roads should be functionally classified with the existing system if they are included in an approved Statewide Transportation Improvement

[1] http://www.fhwa.dot.gov/policy/ohpi/hpms/fchguidance.cfm

Program (STIP) and are expected to be under construction within the STIP timeframe of 4 years or less. Where applicable, the same classification should be given to both the future route and the existing route it replaces until the future route is constructed.

*Figure 1-2: HOV Lane on Interstate 95 in Woodbridge, VA*

Source: www.roadstothefuture.com

3. Ramps and other non-mainline roadways are to be assigned the same functional classification as the highest functional classification among the connecting mainline roadways served by the ramp. (**Figure 1-2**)

*Roadways that fall into the Principal Arterials- Other Freeways & Expressways category are limited-access roadways that serve travel in a similar way to the Interstates.*

4. Principal Arterial roadways (**Figure 1-3**) serve a large percentage of travel between cities and other activity centers, especially when minimizing travel time and distance is important. For this reason, Arterials typically are roadways with high traffic volumes and are frequently the route of choice for intercity buses and trucks. The spacing of Arterials in urban areas is closely related to the trip-end density characteristics of activity centers in urban areas. The spacing of these facilities (in larger urban areas) may vary from less than 1 mile in highly developed central business areas to 5 miles or more in the sparsely developed urban fringes.

*Figure 1-3: Other Principal Arterial in California*


Source: Akos Szoboszlay

*Transportation agencies apply a variety of treatments to preserve mobility and increase the person throughput of Urban Arterials, including ramp metering, high-occupancy-vehicle (HOV) lanes and high-occupancy toll lanes.*

Principal Arterials play a unique role in providing a high degree of mobility and carrying a high proportion of travel for long distance trips. These facilities carry the major portion of trips entering and leaving an activity center, as well as the majority of through movements that either go directly through or bypass the area.

# SECTION 2. CONCEPTS

## 2.1 Introduction

This section of the guidance document presents the concepts underlying the functional classification of roadways. It first introduces the two primary transportation functions of roadways, namely mobility and access, and describes where different categories of roadways fall within a continuum of mobility-access. In addition to mobility and access, other factors that can help determine the proper category to which a particular roadway belongs — such as trip length, speed limit, volume, and vehicle mix — are discussed in this section.

While Arterials, Collectors and Locals span the full range of roadway functions, the Federal functional classification scheme uses additional classification categories to describe these functions more precisely. Distinctions between access-controlled and full-access roadways; the urban and rural development pattern; and subtleties between "major" and "minor" sub-classifications are key considerations when determining the Federal functional classification category to which a particular roadway belongs. The process of determining the correct functional classification of a particular roadway is as much art as it is science. Therefore, a real-world example is presented to help make the discussion of functional classification more readily understood.

*The flow of traffic throughout a roadway network is similar to the flow of blood through the human circulatory system or the trunk and branch system of a tree. The units moving through the system (blood cells, nutrients, vehicles, etc.) move through progressively smaller network elements as they approach their destination.*

## 2.2 Functional Classification Concepts

Most travel occurs through a network of interdependent roadways, with each roadway segment moving traffic through the system towards destinations. The concept of functional classification defines the role that a particular roadway segment plays in serving this flow of traffic through the network. Roadways are assigned to one of several possible functional classifications within a hierarchy according to the character of travel service each roadway provides. Planners and engineers use this hierarchy of roadways to properly channel transportation movements through a highway network efficiently and cost effectively.

### 2.2.1 Access versus Mobility

Roadways serve two primary travel needs: access to/egress from specific locations and travel mobility. While these two functions lie at opposite ends of the continuum of roadway function, most roads provide some combination of each.

- Roadway mobility function: Provides few opportunities for entry and exit and therefore low travel friction from vehicle access/egress
- Roadway accessibility function: Provides many opportunities for entry and exit, which creates potentially higher friction from vehicle access/egress

These two roles can be best understood by examining two extreme examples (**Figure 2-1** and **Figure 2-2**).

First, consider the Eisenhower Tunnel west of Denver, CO. Located along Interstate 70, the Eisenhower Tunnel runs under the Continental Divide in the Rocky Mountains and is one of the longest tunnels in the United States. Motorists that travel through the tunnel are en route to a distant location and are using the roadway completely to serve their "mobility" needs. There is no location that is immediately "accessible" to the roadway.

*Figure 2-1: Aerial View of the Eisenhower (and Johnson) Tunnels along I-70, west of Denver, CO*

*Source: Google Earth Pro, June 27, 2012*

*Figure 2-2: View from Inside the Eisenhower Tunnel*

*Source: Creative Commons Attribution-Share Alike 2.0 generic license; Benjamin Clark*

Next, consider the example of Eisenhower Court in North Platte, NE (**Figure 2-3**). This roadway is travelled almost exclusively by the individuals that live along the roadway. Hence, the roadway entirely provides "accessibility" and offers almost nothing in terms of mobility.

*Figure 2-3: Aerial View of Eisenhower Court, North Platte, NE*

*Source: Google Earth Pro, June 27, 2012*

**Figure 2-4** depicts the neighborhood around Eisenhower Street in Carrollton, TX. This roadway serves both mobility needs (the residents that live along the side streets that intersect Eisenhower Street use it for some level of north/south mobility) and land access needs (there are both residential and commercial properties located along the roadway).

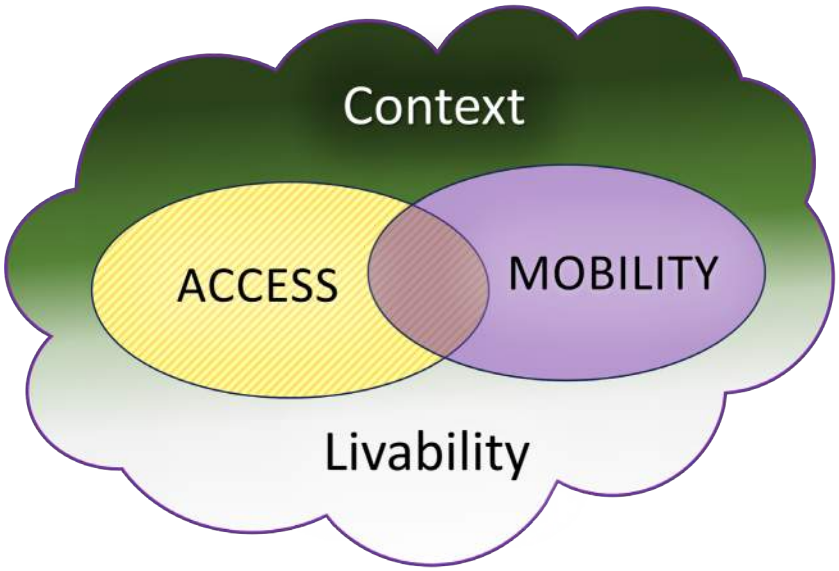
For nomenclature purposes, those roadways that provide a high level of mobility are called "Arterials"; those that provide a high level of accessibility are called "Locals"; and those that provide a more balanced blend of mobility and access are called "Collectors."

*Figure 2-4: Aerial View of Eisenhower Street in Carrollton, TX*

*Source: Google Earth Pro, June 28, 2012*

The relationship between mobility and land access is illustrated in **Figure 2-5**. Arterials provide mostly mobility; Locals provide mostly land access; and Collectors strike a balance between the two. Context Sensitivity and Livability form the environment through which Mobility and Access should be considered. These concepts are discussed in greater detail in Chapter 5.

*Figure 2-5: Illustration of Access-Mobility Dynamic*




*Source: FHWA*

While most roadways offer both "access to property" and "travel mobility" services, it is the roadway's primary purpose that defines the classification category to which a given roadway belongs.[2]

[2] The use of the term "Local" roadway in the context of functional classification is separate from the use of the term in a jurisdictional context. While it is true that roadways functionally classified as "Local" are often under the jurisdiction of a "local" entity (i.e., incorporated city), Local Roads are not always under local jurisdiction. Other roadway classifications, including Arterials, may also be under the jurisdiction of a local (i.e., non-state) entity.

*A route is a linear path of connected roadway segments, all with the same functional classification designation. For example, the roadways along a given Arterial route may — and often do — comprise multiple named roadways or state numbered facilities. Similarly, different segments of a given named roadway, or even more likely a given state numbered route, may belong to different functional classification categories, depending on the character of travel service that each segment provides. In the example to the right, the minor Arterial "route" consists of a portion of Tyler Street and a portion of Dalton Avenue (shown in green). East of Dalton Avenue, Tyler Street (shown in brown) is a Minor Collector.*

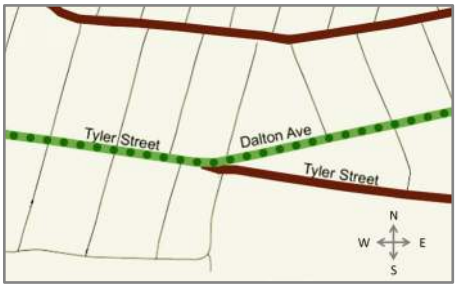
## 2.3 Other Important Factors Related to Functional Classification

The distinction between "mobility and accessibility" is important in assigning functional classifications to roadways. There are a few additional factors to consider, and these are discussed here.

**Efficiency of Travel**: Trip makers will typically seek out roadways that allow them to travel to their destinations with as little delay as possible and by the shortest travel time. Arterial roadways provide this kind of service, often in the form of fully or partially controlled access highways, with no or very few intersecting roadways to hinder traffic flow. Therefore, a high percentage of the length of a long-distance trip will be made on Arterials. In contrast, travelers making shorter trips tend to use Local and/or Collector roadways for a much higher proportion of the trip length than Arterial roads.

**Collectors:** As their name implies, Collectors "collect" traffic from Local Roads and connect traffic to Arterial roadways. Collector routes are typically shorter than Arterial routes but longer than Local Roads. Collectors often provide traffic circulation within residential neighborhoods as well as commercial, industrial, or civic districts (see **Figure 2-6**).

*Figure 2-6: Collector Example*

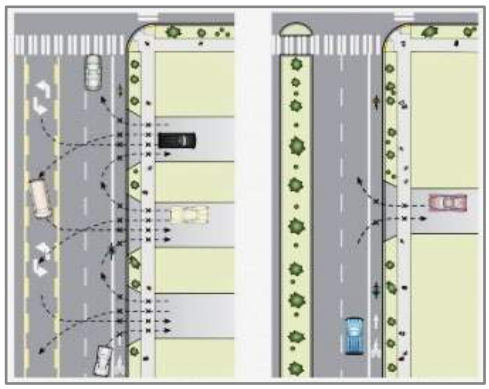



*Source: CDM Smith*

**Access Points:** Arterials primarily serve long-distance travel and are typically designed as either access controlled or partially access controlled facilities with limited locations at which vehicles can enter or exit the roadway (typically via on- or off-ramps). In instances where limited or partial access control is not provided, signalized intersections are used to control traffic flow, with the Arterial given the majority of the green time.

In growing urban areas, Arterial roadways often experience an ever-increasing number of driveway access points. This high degree of accessibility decreases mobility. To address this issue and restore the carrying capacity of through traffic on these roadways, transportation agencies apply access management principles, such as driveway consolidation and median installations (see **Figure 2-7**).

*Figure 2-7: Example of Access Points*



*Source: Ohio DOT, http://www.ahtd.info/basic_bike-walk_facility_design*

In contrast, roadways classified as "Local" provide direct access to multiple properties.

**Speed Limit:** In general, there is a relationship between posted speed limits and functional classification. Arterials typically have higher posted speed limits as vehicles encounter few or no at-grade intersections. The absence of cross-traffic and driveways allows for higher rates of speed, which provides mobility, especially for long-distance travel. In contrast, because their primary role is to provide access, Locals are lined with intersecting access points in the form of driveways, intersecting roadways, cross walks and transfer points for buses and other modes. Due to the frequency of traffic turns, speed limits are kept low to promote safe traffic operations. Speed limits on any non-access-controlled roadways are also influenced by the mix of vehicles and modes that use them.

**Route Spacing:** Directly related to the concept of channelization of traffic throughout a network is the concept of distance (or spacing) between routes. For a variety of reasons, it is not feasible to provide Arterial facilities to accommodate every possible trip in the most direct manner possible or in the shortest amount of time. Ideally, regular and logical spacing between routes of different classifications exists. Arterials are typically spaced at greater intervals than Collectors, which are spaced at much greater intervals than Locals. This spacing varies considerably for different areas; in densely populated urban areas, spacing of all route types is smaller and generally more consistent than the spacing in sparsely developed rural areas. Geographic barriers greatly influence the layout and spacing of roadways.

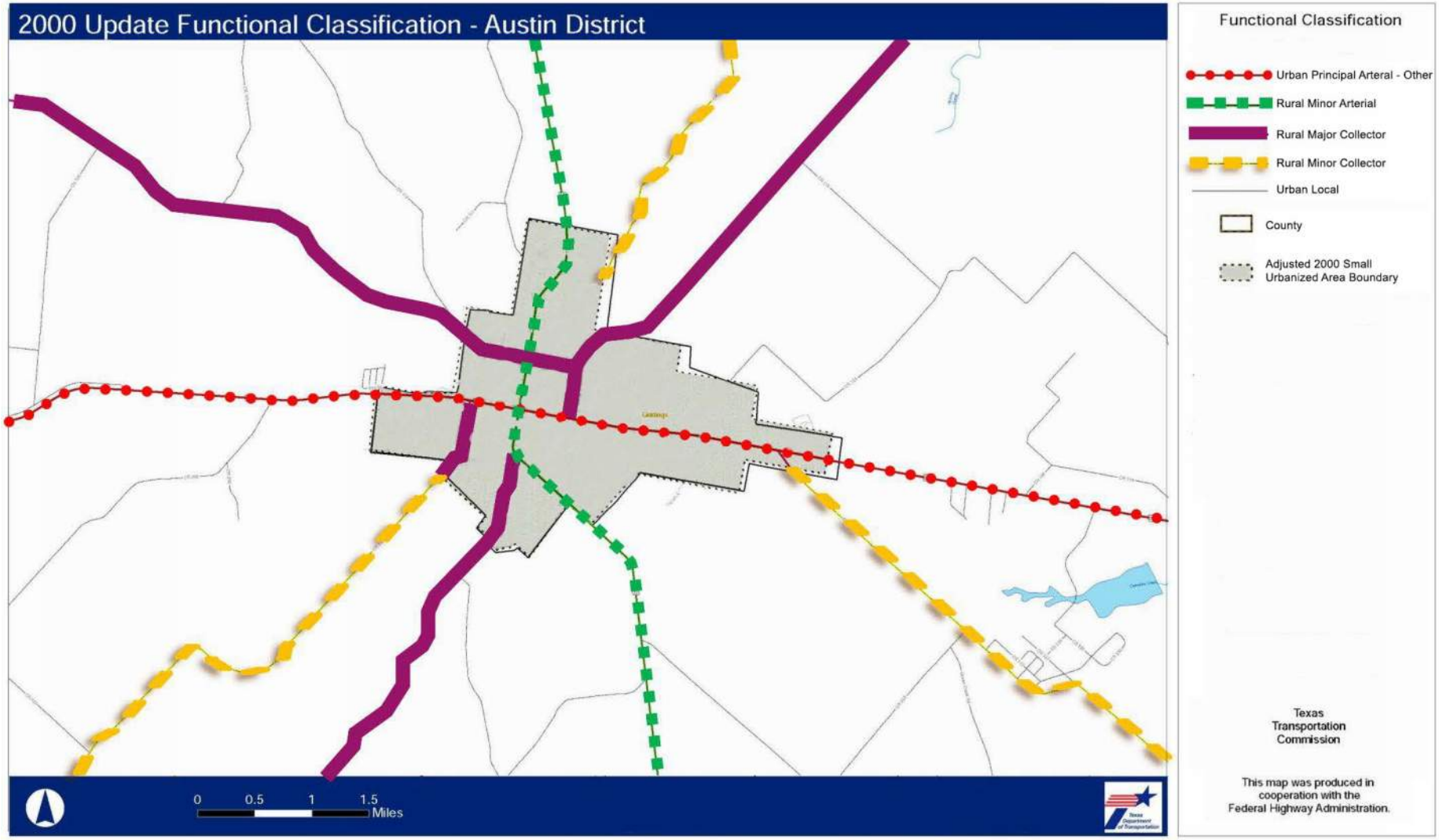
**Usage (Annual Average Daily Traffic [AADT] Volumes and Vehicle Miles of Travel [VMT]):** Arterials serve a high share of longer distance trips and daily vehicle miles of travel. In rural areas, Arterials typically account for approximately half of the daily vehicle miles of travel; in urban areas, this percentage is often higher. Collectors account for the next largest percentage of travel. Urban Area Collectors account for somewhat less (5 to 15 percent), while the percentage for Rural Area Collectors is typically in the 20 to 30 percent range. Lastly, by definition, Local Roads in rural areas typically serve very low density, dispersed developments with relatively low traffic volume. In contrast, the Urban Local Road network, with higher roadway centerline miles and higher density spacing, serves denser land uses and therefore accounts for a larger proportion of travel than its rural counterpart.

*When determining the functional classification of a given roadway, no single factor should be considered alone. For example, US 290 runs through the heart of Giddings, TX. Within the city, the roadway has many intersecting roadways, provides direct access to a number of densely developed commercial and residential properties and has speed limits as low as 35 mph. However, because the roadway is one of the two most direct routes of travel between Austin and Houston and a large percentage of its traffic consists of longer distance trips, the roadway is best classified as an Arterial.*

While there is a general relationship between the functional classification of a roadway and its annual average daily traffic volume, two roads that carry the same traffic volume may actually serve very different purposes and therefore have different functional classifications. Conversely, two roadways in different parts of a State may have the same functional classification but carry very different traffic volumes. This is particularly applicable among urban areas with very different populations — an Arterial within a remote city with a population of 50,000 is likely to have a much lower traffic volume than an Arterial within a city of 1 million people.

Traffic volumes, however, can come into play when determining the proper functional classification of a roadway "on the border" of a functional classification group (for example, trying to determine whether a roadway should be classified as a Collector or Local). Furthermore, AADT can often be used as a "tie-breaker" when trying to determine which of two (or more) similar and roughly parallel roadways should be classified with a higher (or lower) classification than the other. For example, suppose that two parallel roadways appear to serve the function of a Collector. Classifying both of them as a Collector could lead to undesirable redundancy in the functional classification network. All other things being equal, the roadway with the higher AADT would generally be given the Collector classification, while its companion would be given a Local classification (**Figure 2-8**).

*Figure 2-8: Functional Classification Map of Giddings, TX and Surrounding Unincorporated Territory*




*Source: Texas DOT, Transportation Planning and Programming Division, Data Analysis, Mapping and Reporting Branch, September 16, 2008*

*Exceptions to the "connectivity" guideline exist. There are locations where an Arterial can "dead end" and not connect to another Arterial. A common example is when an Arterial terminates at a regionally significant land use (such as an airport or military installation). Another example is a Collector that serves a major residential community and, for topological or other constraining reasons, does not connect at one end to another similarly or higher classified roadway. Many other examples can also be found within coastal communities. Wings Neck Road in Bourne, MA (**Figure 2-10**) is a good example. Other obvious examples are Interstate spur routes (the highest type of Arterial, to be discussed in the following section) that terminate at a city street in the downtown of an urban area.*

**Number of Travel Lanes:** Roadways are designed and constructed according to their expected function. If a roadway is expected to function as an Arterial, it is designed for high capacity, with multiple travel lanes. In general, Arterials are more likely to have a greater number of travel lanes than Collectors, and Collectors are more likely to have a greater number of travel lanes than Locals. It should also be noted that the relationship between functional classification and number of lanes is stronger in urban areas than it is in rural areas.

**Regional and Statewide Significance:** Highly significant roadways connect large activity centers and carry longer-distance travel between and through regions and States. Arterials carry the vast majority of trips that travel through a given State, while Local Roads do not easily facilitate statewide travel.

**Table 2-1** summarizes the relationship between the factors previously described and the three broad categories of functional classification.

*Table 2-1: Relationship between Functional Classification and Travel Characteristics*

| Functional Classification | Distance Served (and Length of Route) | Access Points | Speed Limit | Distance between Routes | Usage (AADT and DVMT) | Significance | Number of Travel Lanes |
|---|---|---|---|---|---|---|---|
| Arterial | Longest | Few | Highest | Longest | Highest | Statewide | More |
| Collector | Medium | Medium | Medium | Medium | Medium | Medium | Medium |
| Local | Shortest | Many | Lowest | Shortest | Lowest | Local | Fewer |

## 2.4 System Continuity

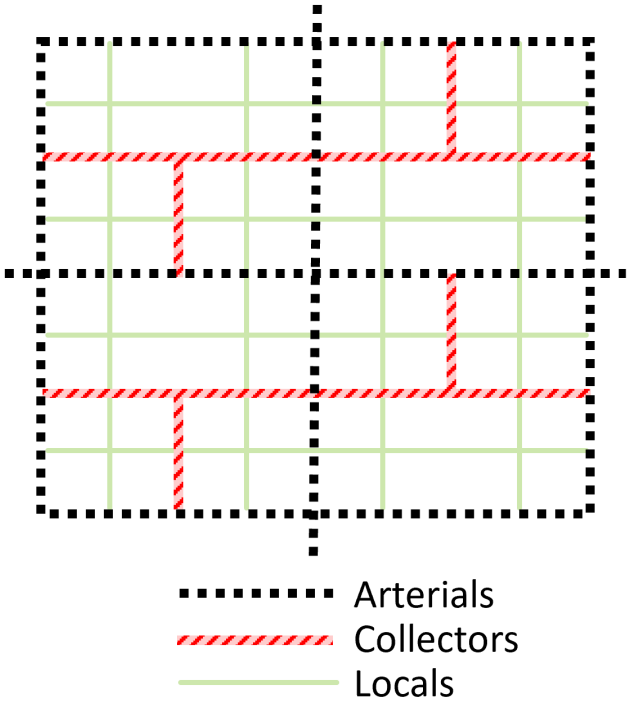
Because the roadway system is an interconnected network of facilities channeling traffic in both directions from Arterials to Collectors, then to Locals and back again, the concept of continuity of routes is important to recognize. A basic tenet of the functional classification network is continuity — a roadway of a higher classification should not connect to a single roadway of a lower classification.[3] Generally speaking, Arterials should only connect to other Arterials. However, there are exceptions to this guideline. Arterials can end or link to very large regional traffic generators or can connect to multiple parallel roads of lower functional classification that, together, provide the same function and capacity as an Arterial.

In **Figure 2-9**, the Arterials (represented by black lines) only connect to other Arterials. Collectors (represented by the red lines), only connect to Arterials or other Collectors. Lastly, Local Roads (represented by the green lines) can connect to any type of roadway.

Exceptions to the "connectivity" guideline exist. A Collector can serve a major residential community and — for topological or other constraining reasons —not connect at one end to another similar or higher classified roadway. Other examples can also be found, especially within coastal communities. Wings Neck Road in Bourne, MA (**Figure 2-10**) is a good example. **Figure 2-11** is an example of an Interstate spur terminating at a city street in Holyoke, MA.

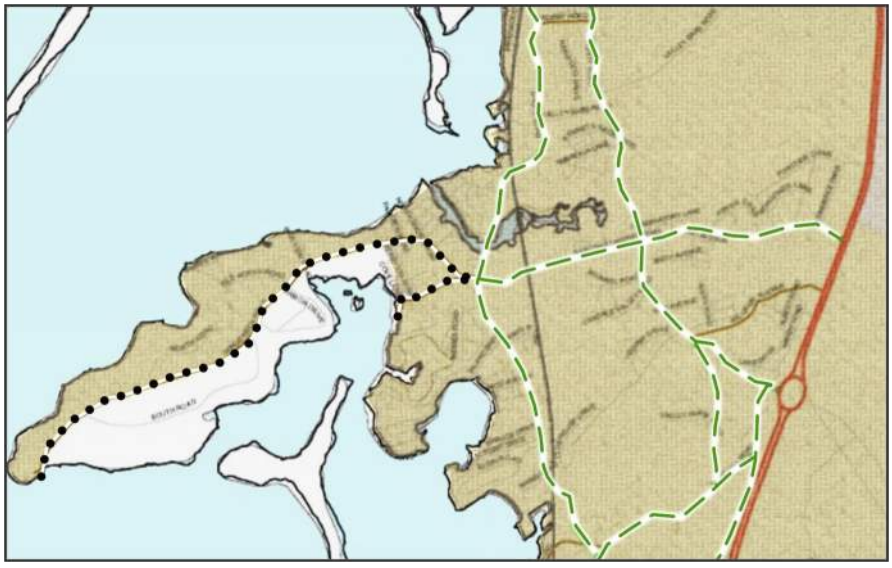
[3] A higher functionally classified road can "split" its traffic between two lower-level roads, with different levels of access and mobility.

*Figure 2-9: Schematic Illustrating the Concept of Continuity*



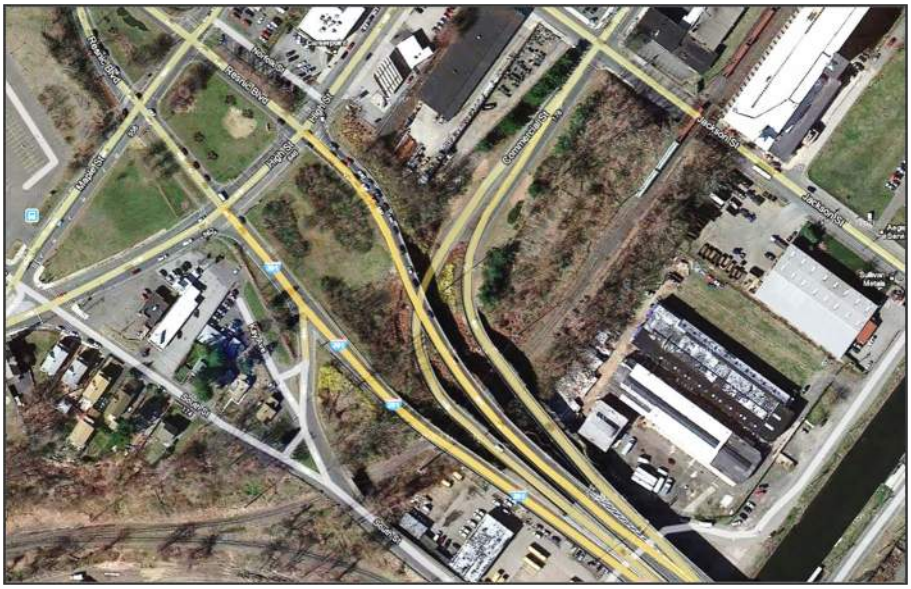

*Source: CDM Smith*

*Figure 2-10: Example of an Exception to the Connectivity Guidelines*
*Wings Neck Road, Bourne, MA*



*Source: MassDOT, Office of Transportation Planning, Functional Classification Map*

Figure 2-11: Example of an Interstate Spur Terminating at a City Street in Holyoke, MA




*Source: Google Earth Pro, June 29, 2012*

# SECTION 3. CRITERIA

## 3.1 Definitions and Characteristics

The previous section provided a general overview of the functional classification categories of Arterial, Collector and Local. For Federal functional classification purposes, this section breaks these categories down further to stratify the range of mobility and access functions that roadways serve. Additionally, the physical layout and the official designation of some roadways dictate the classification of certain roadways.

*Access control is a key factor in the realm of functional classification. All Interstates are "limited access" or "controlled access" roadways. The use of the word "access" in this context refers to the ability to access the roadway and not the abutting land use—these roadways provide no "access" to abutting land uses. Access to these roadways is controlled or limited to maximize mobility by eliminating conflicts with driveways and at-grade intersections that would otherwise hinder travel speed. Access to these roadways is limited to a set of controlled locations at entrance and exit ramps. Travelers use a much lower functionally classified roadway to reach their destination.*

### 3.1.1 Interstates

Interstates are the highest classification of Arterials and were designed and constructed with mobility and long-distance travel in mind. (**Figure 3-1**) Since their inception in the 1950's, the Interstate System has provided a superior network of limited access, divided highways offering high levels of mobility while linking the major urban areas of the United States.

*Figure 3-1: Example of Interstate*

*Source: CDM Smith*

Determining the functional classification designation of many roadways can be somewhat subjective, but with the Interstate category of Arterials, there is no ambiguity. Roadways in this functional classification category are officially designated as Interstates by the Secretary of Transportation, and all routes that comprise the Dwight D. Eisenhower National System of Interstate and Defense Highways belong to the Interstate functional classification category and are considered Principal Arterials.

### 3.1.2 Other Freeways & Expressways

Roadways in this functional classification category look very similar to Interstates. While there can be regional differences in the use of the terms 'freeway' and 'expressway', for the purpose of functional classification the roads in this classification have directional travel lanes are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections. Like Interstates, these roadways are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them.

## 3.1.3 Other Principal Arterials

*Figure 3-2: Example of Other Principal Arterial*

*Source: CDM Smith*

These roadways serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. Unlike their access-controlled counterparts, abutting land uses can be served directly. Forms of access for Other Principal Arterial roadways include driveways to specific parcels and at-grade intersections with other roadways. (**Figure 3-2**) For the most part, roadways that fall into the top three functional classification categories (Interstate, Other Freeways & Expressways and Other Principal Arterials) provide similar service in both urban and rural areas. The primary difference is that there are usually multiple Arterial routes serving a particular urban area, radiating out from the urban center to serve the surrounding region. In contrast, a rural area of equal size would be served by a single Arterial.

**Table 3-1** presents a few key differences between the character of service that urban and rural Arterials provide.

*Table 3-1: Characteristics of Urban and Rural Arterials*

| Urban | Rural |
|---|---|
| • Serve major activity centers, highest traffic volume corridors and longest trip demands<br>• Carry high proportion of total urban travel on minimum of mileage<br>• Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban area and movements through the urban area<br>• Serve demand for intra-area travel between the central business district and outlying residential areas | • Serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel<br>• Connect all or nearly all Urbanized Areas and a large majority of Urban Areas with 25,000 and over population<br>• Provide an integrated network of continuous routes without stub connections (dead ends) |

## 3.1.4 Minor Arterials

Minor Arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity and may carry local bus routes. **(Figure 3-3)**

*Figure 3-3: Example of Urban Minor Arterial*

*Source: Unsourced photo*

In rural settings, Minor Arterials should be identified and spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher-level Arterial. Additionally, Minor Arterials in rural areas are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement. The spacing of Minor Arterial streets may typically vary from 1/8- to 1/2-mile in the central business district (CBD) and 2 to 3 miles in the suburban fringes. Normally, the spacing should not exceed 1 mile in fully developed areas (see **Table 3-2**).

*Table 3-2: Characteristics of Urban and Rural Minor Arterials*

| Urban | Rural |
|---|---|
| • Interconnect and augment the higher-level Arterials<br>• Serve trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials<br>• Distribute traffic to smaller geographic areas than those served by higher-level Arterials<br>• Provide more land access than Principal Arterials without penetrating identifiable neighborhoods<br>• Provide urban connections for Rural Collectors | • Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service<br>• Be spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an Arterial roadway<br>• Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement |

## 3.1.5 Major and Minor Collectors

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of functional classification, Collectors are broken down into two categories: Major Collectors and Minor Collectors. All Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into *major* and *minor*

categories. The determination of whether a given Collector is a Major or a Minor Collector is frequently one of the biggest challenges in functionally classifying a roadway network.

In the rural environment, Collectors generally serve primarily intra-county travel (rather than statewide) and constitute those routes on which (independent of traffic volume) predominant travel distances are shorter than on Arterial routes. Consequently, more moderate speeds may be posted.

The distinctions between Major Collectors and Minor Collectors are often subtle. Generally, Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts. Careful consideration should be given to these factors when assigning a Major or Minor Collector designation. In rural areas, AADT and spacing may be the most significant designation factors. Since Major Collectors offer more mobility and Minor Collectors offer more access, it is beneficial to reexamine these two fundamental concepts of functional classification. Overall, the total mileage of Major Collectors is typically lower than the total mileage of Minor Collectors, while the total Collector mileage is typically one-third of the Local roadway network (see **Table 3-3**).

*Table 3-3: Characteristics of Urban and Rural Major Collectors*

| MAJOR COLLECTORS | |
|---|---|
| **Urban** | **Rural** |
| • Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas<br>• Penetrate residential neighborhoods, often for significant distances<br>• Distribute and channel trips between Local Roads and Arterials, usually over a distance of greater than three-quarters of a mile<br>• Operating characteristics include higher speeds and more signalized intersections | • Provide service to any county seat not on an Arterial route, to the larger towns not directly served by the higher systems and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks and important mining and agricultural areas<br>• Link these places with nearby larger towns and cities or with Arterial routes<br>• Serve the most important intra-county travel corridors |

| MINOR COLLECTORS | |
|---|---|
| **Urban** | **Rural** |
| • Serve both land access and traffic circulation in lower density residential and commercial/industrial areas<br>• Penetrate residential neighborhoods, often only for a short distance<br>• Distribute and channel trips between Local Roads and Arterials, usually over a distance of less than three-quarters of a mile<br>• Operating characteristics include lower speeds and fewer signalized intersections | • Be spaced at intervals, consistent with population density, to collect traffic from Local Roads and bring all developed areas within reasonable distance of a Collector<br>• Provide service to smaller communities not served by a higher-class facility<br>• Link locally important traffic generators with their rural hinterlands |

### 3.1.6 Local Roads

Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. Bus routes generally do not run on Local Roads. They are often designed to discourage through traffic. As public roads, they should be accessible for public use throughout the year.

Local Roads are often classified by default. In other words, once all Arterial and Collector roadways have been identified, all remaining roadways are classified as Local Roads (see **Table 3-4**).

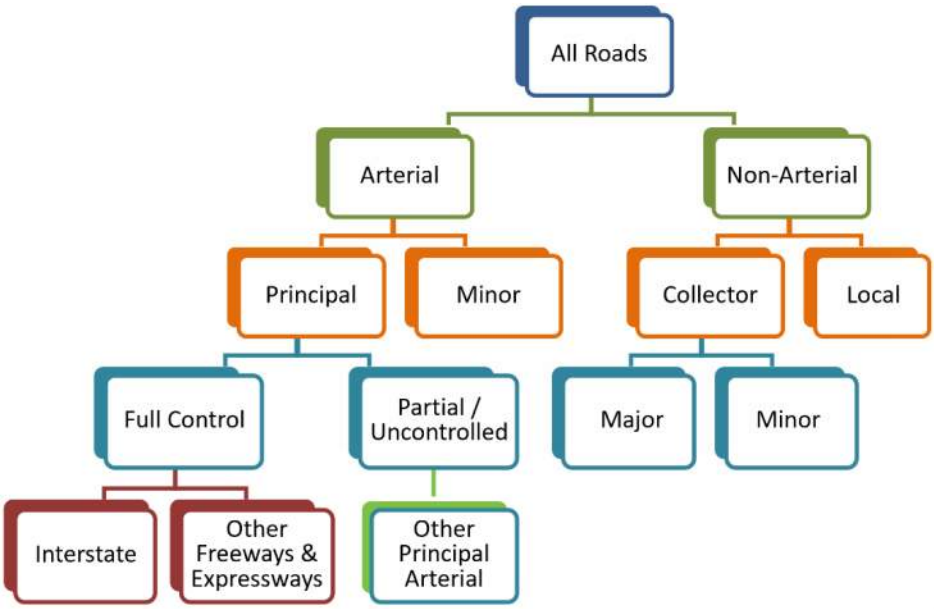
*Table 3-4: Characteristics of Urban and Rural Local Roads*

| Urban | Rural |
|---|---|
| • Provide direct access to adjacent land<br>• Provide access to higher systems<br>• Carry no through traffic movement<br>• Constitute the mileage not classified as part of the Arterial and Collector systems | • Serve primarily to provide access to adjacent land<br>• Provide service to travel over short distances as compared to higher classification categories<br>• Constitute the mileage not classified as part of the Arterial and Collector systems |

## 3.2 Putting it all Together

The functional classification system groups roadways into a logical series of decisions based upon the character of travel service they provide. **Figure 3-4** presents this process, starting from assigning the function of an Arterial by its level of access (limited or full) or Non-Arterial (full access).

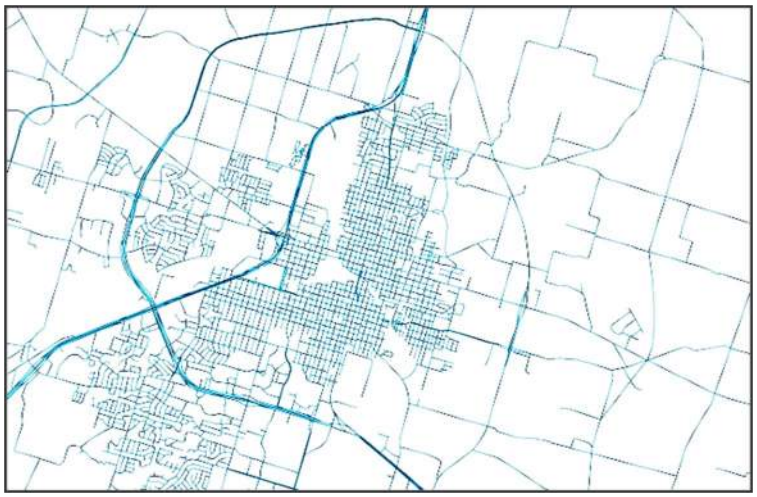
*Figure 3-4: Federal Functional Classification Decision Tree*




*Source: FHWA and CDM Smith*

While this document emphasizes the importance of function and service over the urban/rural distinction when classifying roads, the classification process is still influenced by the intensity and distribution of land development patterns. Classification of roadways in urban areas is typically guided by the local comprehensive planning and design process, or the fundamental principles of roadway functional classification. In comparison, rural development patterns are often more diverse, if not less orderly, thereby making the functional classification determination of some rural roadways more challenging (see **Figure 3-5** and **Figure 3-6**).

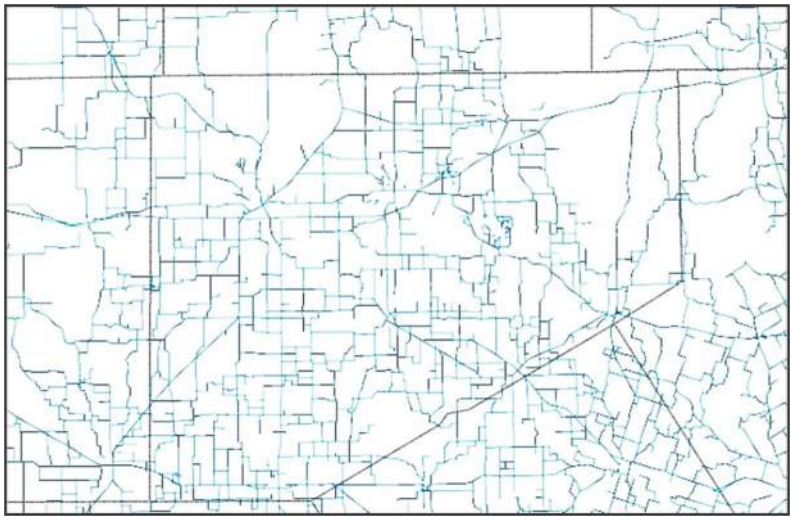
*Figure 3-5: Map of an Urban Area's Roadway Network (Functional Classification more evident)*



*Source: CDM Smith*

*Figure 3-6: Map of a Rural Area's Roadway Network*

***(Functional Classification less evident)***



*Source: CDM Smith*

When comparing urban and rural areas, perhaps the most relevant characteristic is the density of the roadway network. Even with a cursory view of a map of an urban area's roadway network, the functional classification of many roadways can be discerned due the differences in roadway size. In contrast, the functional classification of the roadway network in many rural areas is less readily apparent, primarily due to the relatively inconsistent roadway spacing.

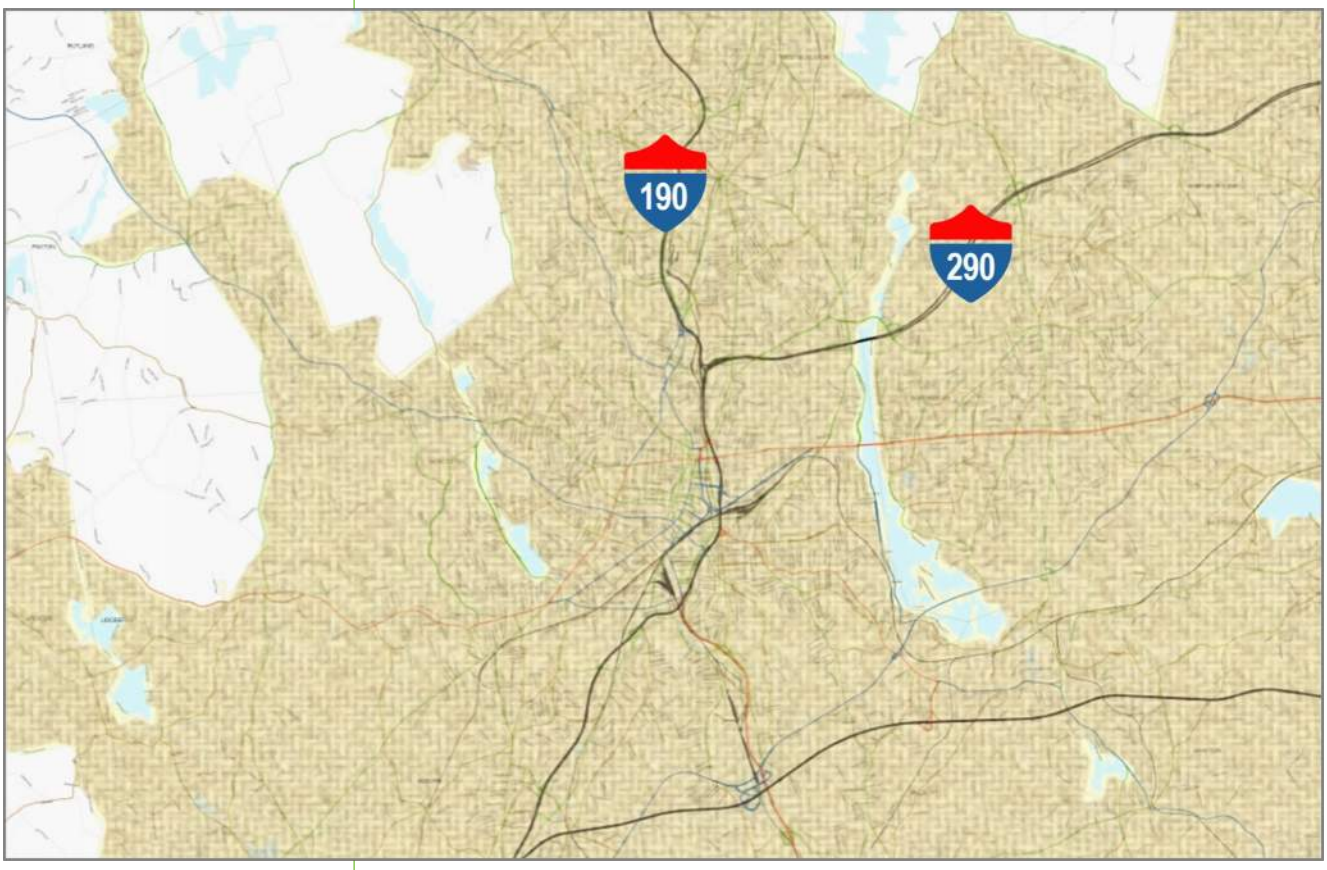
Nevertheless, functional classifications should be assigned based on actual functional criteria, rather than the location of the roadway within an urban or rural context.

## 3.3 A Real World Example

At this point, the concepts, criteria and definitions of all Federal functional classification categories have been presented. However, to strengthen the functional classification practitioner's understanding of these topics, the real-world example of the city of Worcester, MA is presented below (**Figure 3-7**).

*Figure 3-7: Worcester, MA Roadway System*

Shaded area depicts the Urbanized Area




*Source: Massachusetts DOT*

1. The city of Worcester is served by two interstate routes, Interstate 190 and Interstate 290 (shown in black). These Interstates provide high mobility service to residential communities to the north, northeast and south sides of the city.
2. A handful of Other Freeways & Expressways and Other Principal Arterials (shown in red and blue) radiate out from the central core of the city and provide direct service into, out of and through the city, offering connections to the surrounding areas not served by the Interstates.
3. An even larger number of Minor Arterials (shown in green) provide connectivity between the Interstate, Other Freeways & Expressways and Other Principal Arterials and are rather evenly spaced. Note that only a few of these Minor Arterial routes actually extend outside of the city border, as most of them terminate at Arterials within the city limits.
4. The Collector roadway system (shown in brown) consists of relatively shorter routes that mainly connect to Minor Arterials.
5. All other roadways (shown in gray) are Local Roads and comprise the vast majority of the mileage of the city's roadway network.

## 3.4 Final Considerations

In many instances, assigning a functional classification to a roadway is straightforward, especially for Interstates and Locals. However, there is flexibility when deciding between adjacent classifications. For example, deciding whether a given roadway acts as a Minor Arterial or Major Collector can be subject to debate. Deciding between a Major Collector and Minor Collector assignment can be even more challenging.

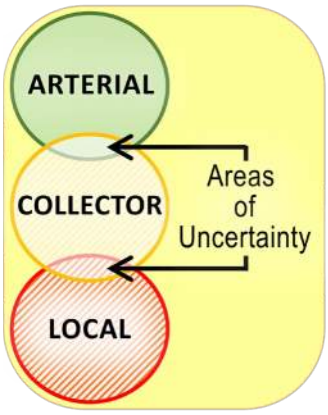
To assist transportation planners responsible for determining the functional classification of roadways, this guidebook offers a helpful tool that can make the classification process of classifying "borderline" roadways a bit easier. **Table 3-5** illustrates the range of lane width, shoulder width, AADTs, divided/undivided status, access control and access points per mile by functional classification categories.

Table 3-5 also presents guidelines for mileage and VMT ranges for Federal functional classifications of roads. These guidelines are based on an analysis of 2008 HPMS data and are adjusted to represent reasonable ranges. The table presents mileage and VMT extents for rural states, urban states and all states. For this purpose, rural states are defined as having 75 percent or less of their population in urban areas. Research determined this was a natural breakpoint that approximated the geographic difference between the States.

As expected, Interstates account for the lowest portion of total system miles, but the greatest portion of travel. Conversely, Local Roads comprise the greatest portion of system mileage with Collectors carrying the lowest percentage of travel volume. Therefore, as a primary consideration in functional classification, planners and engineers can use mileage as a guideline. Where roadway systems significantly deviate from these ranges, State DOTs should consider adjusting their roadway assignments during the functional classification review process and at least every 10 years as part of the response to Census defined Urban Boundary changes. FHWA intends to review these guideline ranges for mileage and VMT periodically.

Lastly, as a result of variances within the functional classification system, the guidelines have overlapping ranges of values. This allows greater flexibility in determining functional classification (see **Figure 3-8**).

*Figure 3-8: Classification Overlap*




*Source: FHWA*

*Table 3-5: VMT and Mileage Guidelines by Functional Classifications - Arterials*

| Arterials: | Interstate | Other Freeways & Expressway | Other Principal Arterial | Minor Arterial |
|---|---|---|---|---|
| **Typical Characteristics** | | | | |
| **Lane Width** | 12 feet | 11 - 12 feet | 11 - 12 feet | 10 feet - 12 feet |
| **Inside Shoulder Width** | 4 feet - 12 feet | 0 feet - 6 feet | 0 feet | 0 feet |
| **Outside Shoulder Width** | 10 feet - 12 feet | 8 feet - 12 feet | 8 feet - 12 feet | 4 feet - 8 feet |
| **AADT[1] (Rural)** | 12,000 - 34,000 | 4,000 - 18,500[2] | 2,000 - 8,500[2] | 1,500 - 6,000 |
| **AADT[1] (Urban)** | 35,000 - 129,000 | 13,000 - 55,000[2] | 7,000 – 27,000[2] | 3,000 - 14,000 |
| **Divided/Undivided** | Divided | Undivided/Divided | Undivided/Divided | Undivided |
| **Access** | Fully Controlled | Partially/Fully Controlled | Partially/Uncontrolled | Uncontrolled |
| **Mileage/VMT Extent (Percentage Ranges)[1]** | | | | |
| **Rural System** | | | | |
| **Mileage Extent for Rural States[2]** | 1% - 3% | 0% - 2% | 2% - 6% | 2% - 6% |
| **Mileage Extent for Urban States** | 1% - 2% | 0% - 2% | 2% - 5% | 3% - 7% |
| **Mileage Extent for All States** | 1% - 2% | 0% - 2% | 2% - 6% | 3% - 7% |
| **VMT Extent for Rural States[2]** | 18% - 38% | 0% - 7% | 15% - 31% | 9% - 20% |
| **VMT Extent for Urban States** | 18% - 34% | 0% - 8% | 12% - 29% | 12% - 19% |
| **VMT Extent for All States** | 20% - 38% | 0% - 8% | 14% - 30% | 11% - 20% |
| **Urban System** | | | | |
| **Mileage Extent for Rural States[2]** | 1% - 3% | 0% - 2% | 4% - 9% | 7% - 14% |
| **Mileage Extent for Urban States** | 1% - 2% | 0% - 2% | 4% - 5% | 7% - 12% |
| **Mileage Extent for All States** | 1% - 3% | 0% - 2% | 4% - 5% | 7% - 114% |
| **VMT Extent for Rural States[2]** | 17% - 31% | 0% - 12% | 16% - 33% | 14% - 27% |
| **VMT Extent for Urban States** | 17% - 30% | 3% - 18% | 17% - 29% | 15% - 22% |
| **VMT Extent for All States** | 17% - 31% | 0% - 17% | 16% - 31% | 14% - 25% |

| | | |
|---|---|---|
| **Qualitative Description (Urban):** | • Serve major activity centers, highest traffic volume corridors, and longest trip demands<br>• Carry high proportion of total urban travel on minimum of mileage<br>• Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban area and movements through the urban area<br>• Serve demand for intra-area travel between the central business district and outlying residential areas | • Interconnect with and augment the principal arterials<br>• Serve trips of moderate length at a somewhat lower level of travel mobility than principal arterials<br>• Distribute traffic to smaller geographic areas than those served by principal arterials<br>• Provide more land access than principal arterials without penetrating identifiable neighborhoods<br>• Provide urban connections for rural collectors |
| **Qualitative Description (Rural):** | • Serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel<br>• Serve all or nearly all urbanized areas and a large majority of urban areas with 25,000 and over population<br>• Provide an integrated network of continuous routes without stub connections (dead ends) | • Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service<br>• Spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an arterial roadway<br>• Provide service to corridors with trip lengths and travel density greater than those served by rural collectors and local roads and with relatively high travel speeds and minimum interference to through movement |

1- *Ranges in this table are derived from 2011 HPMS data.*

2- *For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban areas.*

*Table 3-6: VMT and Mileage Guidelines by Functional Classifications – Collectors and Locals*

| Collectors: | Major Collector[2] | Minor Collector[2] | Local |
|---|---|---|---|
| **Typical Characteristics** | | | |
| **Lane Width** | 10 feet - 12 feet | 10 - 11 feet | 8 feet - 10 feet |
| **Inside Shoulder Width** | 0 feet | 0 feet | 0 feet |
| **Outside Shoulder Width** | 1 foot - 6 feet | 1 foot - 4 feet | 0 feet - 2 feet |
| **AADT[1] (Rural)** | 300 - 2,600 | 150 - 1,110 | 15 - 400 |
| **AADT[1] (Urban)** | 1,100 - 6,300[2] | 1,100 - 6,300[2] | 80 - 700 |
| **Divided/Undivided** | Undivided | Undivided | Undivided |
| **Access** | Uncontrolled | Uncontrolled | Uncontrolled |
| **Mileage/VMT Extent (Percentage Ranges)[1]** | | | |
| **Rural System** | | | |
| **Mileage Extent for Rural States[3]** | 8% - 19% | 3% - 15% | 62% - 74% |
| **Mileage Extent for Urban States** | 10% - 17% | 5% - 13% | 66% - 74% |
| **Mileage Extent for All States** | 9% - 19% | 4% - 15% | 64% - 75% |
| **VMT Extent for Rural States[3]** | 10% - 23% | 1% - 8% | 8% - 23% |
| **VMT Extent for Urban States** | 12% - 24% | 3% - 10% | 7% - 20% |
| **VMT Extent for All States** | 12% - 23% | 2% - 9% | 8% - 23% |
| **Urban System** | | | |
| **Mileage Extent for Rural States[3]** | 3% - 16% | 3% - 16%[2] | 62% - 74% |
| **Mileage Extent for Urban States** | 7% - 13% | 7% - 13%[2] | 67% - 76% |
| **Mileage Extent for All States** | 7% - 15% | 7% - 15%[2] | 63% - 75% |
| **VMT Extent for Rural States[3]** | 2% - 13% | 2% - 12%[2] | 9% - 25% |
| **VMT Extent for Urban States** | 7% - 13% | 7% - 13%[2] | 6% - 24% |
| **VMT Extent for All States** | 5% - 13% | 5% - 13%[2] | 6% - 25% |
| **Qualitative Description (Urban)** | • Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas<br>• Penetrate residential neighborhoods, often for significant distances<br>• Distribute and channel trips between local streets and arterials, usually over a distance of greater than three-quarters of a mile | • Serve both land access and traffic circulation in lower density residential, and commercial/industrial areas<br>• Penetrate residential neighborhoods, often only for a short distance<br>• Distribute and channel trips between local streets and arterials, usually over a distance of less than three-quarters of a mile | • Provide direct access to adjacent land<br>• Provide access to higher systems<br>• Carry no through traffic movement |
| **Qualitative Description (Rural)** | • Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks, important mining and agricultural areas<br>• Link these places with nearby larger towns and cities or with arterial routes<br>• Serve the most important intra-county travel corridors | • Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within reasonable distance of a minor collector<br>• Provide service to smaller communities not served by a higher-class facility<br>• Link locally important traffic generators with their rural hinterlands | • Serve primarily to provide access to adjacent land<br>• Provide service to travel over short distances as compared to higher classification categories<br>• Constitute the mileage not classified as part of the arterial and collectors systems |

1- *Ranges in this table are derived from 2011 HPMS data.*

2- *Information for Urban Major and Minor Collectors is approximate, based on a small number of States reporting.*

3- *For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban areas.*

*State DOTs are required to collect, analyze and publish traffic data on the roadways within their borders. Specifically, through the Highway Performance Monitoring System, each roadway segment on the Federal-aid highway (e.g., urban roadways classified as Minor Collectors and above and rural roadways classified as Major Collectors and above) is required to have an AADT value that is based on an actual traffic count within the last3 years. Therefore, AADT is a readily available and objective metric that can be brought into the functional classification determination process.*

Mileage and Daily Vehicle - Miles of Travel (DVMT) Ranges: While these guidelines should be considered general rules of thumb, FHWA encourages State DOTs to generate similar statistics for their roadway network and evaluate whether they fall within the normal ranges presented here. States should also apply the urban and rural guidelines as appropriate to their urban and rural areas.

Annual Average Daily Traffic: Roadway traffic volumes are typically expressed as annual average daily traffic (AADT) and represent one of the most objective characteristics of a roadway's usage, providing a standard, easy to understand and simple metric for comparing the relative importance of roadways. In general, the higher the traffic volume is, the higher the functional classification will be (relative to the norms in the surrounding area). Therefore, examining the AADT with other roadways in both the immediate vicinity (and in the region as a whole) is helpful when deciding a "borderline" roadway classification. If, for example, when trying to determine whether a given roadway with an AADT of 3,500 should be classified as a Minor Arterial or Major Collector, most of the Minor Arterials (in the immediate area and the region at large) fall within the 4,000 to 10,000 range, and the Major Collectors fall within the 2,000 to 4,000 range, the roadway should be classified as a Major Collector.

The Big Picture: If there still remains some ambiguity surrounding what classification should be applied to a given roadway, it is often helpful to examine the roadways in close proximity to it and to consider the spacing. For example, if trying to determine whether a roadway should be classified as a Minor Arterial or Major Collector, it is useful to take a "step back" and determine whether any functional classification is under- or over-represented. If the area has a significant number of Minor Arterials, then the roadway could very well be best classified as a Major Collector. Alternatively, if there is not another Minor Arterial within a few-mile radius of the roadway (assuming an urban context), then the roadway may best be designated as a Minor Arterial.

Even after careful review of a given roadway's attributes, a small set of roadway segments that are difficult to classify can remain. For this reason, the set of mileage guidelines in Tables 3-5 and 3-6 can help provide high-level guidance regarding both the extent (mileage) and usage (vehicle miles of travel [VMT]) of the roadway system that should fall into the different functional classification categories. While these guidelines have been developed for application at the State level, they can also be applied within regions.

# SECTION 4. PROCEDURES

## 4.1 Introduction

*Agencies can use travel demand models to validate or update their functional classification assignments. These models and the software they use produce estimates of the number of trips that travel between activity centers as well as the flows of travel on roadway segments. A particularly useful feature is "select link analysis" that shows the origin and destination location of travel from a roadway segment, and select zone analysis, which shows the path of trips from or to an activity center. Travel demand model "activity centers" represent collections of smaller areas such as block groups, census tracts or even counties, so their ability to track the path of travel from smaller areas is often limited.*

This section of the guidance outlines suggested procedures for assigning functional classifications to highways, including a discussion of the specific technical tasks that describe the detailed technical "how to" tasks, as well as the collaborative efforts with partner agencies to ensure the functional classification of the roadway network considers State, regional and local needs. Currently, each State maintains a categorized roadway network consistent with the Federal functional classification system. While functional classifications of some roadways can and do change over time, the functional classification of the vast majority of roadways remains stable. Consequently, the focus of each State's efforts should be to identify roadways where the functionality has changed. These changes can take the form of newly constructed, re-aligned, extended, widened or otherwise reconfigured roadways. Equally important are changing land use and development patterns — growing residential areas, newly developed commercial or industrial centers and construction of isolated traffic generators can all have a profound impact on the roadway network serving these developments. State DOTs should establish, with local planning partners, a collaborative process of monitoring development and roadway usage patterns to ensure that the functional classification system is kept current.

While the nation's roadway system is mature in comparison to the 1960's-era highway system, the concepts and processes pertaining to the original Federal functional classification system are still relevant. The following section briefly presents an adaptation of the key recommendations of the 1989 guidance document, which is based on an earlier 1960's era document.

Many State DOTs have generated their own functional classification guidance documents. For the most part, these State-specific documents are based upon FHWA's 1989 document, augmented with additional details as necessary. To obtain a complete understanding of functional classification procedures in a particular State, these supporting documents should be reviewed as well.

## 4.2 Identifying the Functional Classification of a Roadway Network

A primary objective of the functional classification system is to connect traffic generators (population centers, schools, shopping areas, etc.) with a roadway network that channelizes trips logically and efficiently. As classification proceeds from identifying Arterials to Collectors to Locals, the perspective (and size) of traffic generators also moves from a larger to a smaller scale (or from a smaller to a larger scale, if starting from the local development).

When developing a functional classification network in a given area, the same basic procedures should be followed, whether the functional classification is applied in a rural or an urban area. However, due to the differences in population

and land development intensity between rural and urban areas, the process and considerations used to classify roadways may be different. Because functional classification is part art and part science, these procedures are a blend of detailed, task-oriented steps and qualitative guidelines. These procedures do not eliminate judgment from the classification process, but when used as a guide, they help to apply judgment in a sound and orderly fashion.

1. **Identify traffic generators.** In rural areas, traffic generators may be population centers (cities and towns); recreational areas such as lakes, national and State parks; military facilities; consolidated schools; and shipping points. In urban areas, traffic generators may be business districts; air, rail, bus and truck terminals; regional shopping centers; colleges and universities; hospital complexes; military bases; industrial and commercial centers; stadiums; fairgrounds; and parks. Regional traffic generators adjacent, but outside of the area of interest, should also be identified.

2. **Rank traffic generators.** Traffic generators should be categorized based on their relative ability to generate trips and be first stratified into urban and rural groupings. Traffic generators thought to be significant enough to be served by a Major Collector or higher should be categorized into five to eight groups (it is better to have too many groups than to have too few, especially toward the lower end of the scale). Traffic generators with similar significance should be placed in the same group. These groups will be used to identify the functional classification of connecting roadways. Population, sales tax receipts, retail trade, visitation and employment are some examples of factors to consider when ranking traffic generations according to their significance.

3. **Map traffic generators.** Traffic generators should be mapped using graduated symbols of varying sizes and/or colors according to the group to which the generator belongs. This will produce a visual representation of the ranking. For example, the group of generators ranked highest should all be symbolized with the largest symbol.

4. **Determine the appropriate functional classification to connect traffic generators.** To determine the functional classification of roadways, work from the highest mobility facilities first by identifying Interstates, Other Freeways & Expressways, Other Principal Arterials, then Minor Arterials and Collectors (Major, then Minor). Then, by definition, Local Roads will be all of the roadways that were not classified as Arterials or Collectors. In other words, begin with a wide, regional perspective to identify Principal Arterials, then gradually move to smaller, more localized perspectives as Minor Arterials, Major Collectors and Minor Collectors are identified. In this process, consider the size of the traffic generators connected and the predominant travel distances and "travel shed"[4] served.

[4] "Travel shed" refers to the general area from which most travelers originate.

### 4.2.1 Arterial Considerations

Arterials serve a wide range of functions across the access-mobility spectrum. Some considerations and rules of thumb for designating roads as Arterials include:

- Start with Interstates and Other Freeways & Expressways. Control of access is perhaps the easiest criterion to apply since roadways with full or partial control of access will most always be in the Arterial classification category. It is therefore advantageous to identify these roadways first, providing a convenient starting point in defining the Arterial system.
- Preserve the continuity of Principal Arterials (Interstates, Other Freeways & Expressways and Other Principal Arterials). Continuity of Principal Arterial routes traveling from rural areas, then into and through urban areas, should be preserved.
- Arterials should avoid neighborhoods. They often serve as buffers between incompatible land uses and should avoid penetration of residential neighborhoods.
- Most high-volume roadways in urban areas function as Arterials. Notable exceptions to this rule in intensely developed area exist in cases where high volume roadways actually function as Collectors that serve traffic movements between Locals and Arterials or provide a high degree of direct access service to abutting land uses. For example, roadways that border on high-activity, low-land area generators may carry proportionally high volumes of traffic while functioning as Collectors.
- The network of Minor Arterial roadways will usually intersect roadways in all other classifications.
- In urban areas, guidance for distinguishing between Principal and Minor Arterials includes:
  - *Principal Arterials typically serve:*
    - *Activity centers, from CBDs to larger town centers*
    - *Important air, rail, bus and truck terminals*
    - *Regional shopping centers*
    - *Large colleges, medical complexes, military bases and other institutional facilities*
    - *Major industrial and commerce centers*
    - *Important recreational areas*
  - Principal Arterials provide more mobility; Minor Arterials provide more access. The land access function of Principal Arterials is subordinate to their primary function of providing mobility for traffic not destined to land adjacent to the roadway. Minor Arterials, on the other hand, have a slightly more important land access function (although even for this classification category, this is a secondary consideration).
  - In general, the spacing between Principal Arterials should be greater than the spacing between Minor Arterials. In most cases, Minor Arterials will be located between Principal Arterials.

- Minor Arterials in urban areas should provide service to all remaining major traffic generators not served by a Principal Arterial, and they provide adequate area-wide circulation.
- Location matters when assigning functional classification. Because traffic volumes in the outlying portions of an urban area are generally lower than in the more densely populated central areas, the traffic volume on a Minor Arterial in the central city may be greater than the volume on a Principal Arterial in a suburban area.

  Note: Under MAP-21, the National Highway System (NHS) was expanded on October 1, 2012, to include the Principal Arterials at that time. This one-time event did not create a link between the NHS and Principal Arterials. A change to the Principal Arterials does not automatically change the NHS.

### 4.2.2 Collector Considerations

Collectors, which may have an important land access function, serve primarily to funnel traffic between Local and Arterial roadways. In order to bridge this gap, Collectors must and do provide access to residential neighborhoods.

When deciding between Major and Minor Collectors, the following guidelines should be considered:

- A road that is not designated as an Arterial but that connects larger generators to the Arterial network can be classified as a Major Collector. Major Collectors generally are busier, have more signal-controlled intersections and serve more commercial development.
- Identify Minor Collectors for under-served residential areas. After Major Collectors have been identified, Minor Collectors should be identified for clustered residential areas that have yet to be served by a roadway within higher classification categories.
- In rural areas, Minor Collectors should have approximately equal distance between Arterial or Major Collector routes for equal population densities, such that equitable service is provided to all rural areas of the State. The population density within each area bounded by an Arterial and/or Major Collector route can be determined, and the existing spacing of routes already selected can be measured. Areas with poor service can then be identified by comparing the data with a table of desirable Collector spacing (mileage between routes) versus population density. Additional routes can be added to the system as necessary.

### 4.2.3 General Rules of Thumb for All Categories and the System as a Whole

While working through the functional classification system of roadway classifications, the following additional considerations should be kept in mind:

- Roadways that connect to and allow for the interchange of traffic with Principal Arterials are most likely to be Other Principal Arterials, Minor Arterials or Collectors.

- Avoid, if possible, within spacing guidelines, assigning the same functional classification to parallel routes. In the event that parallel routes are determined to provide identical functions, a determination should be made as to which of the routes is more important (as perhaps indicated by traffic volumes); the other parallel route(s) will be assigned the next lower functional classification.
- In general, the more intense the development, the closer the spacing of roadways within the same functional classification category. In less dense suburban locations within an urban area, neighborhoods tend to be larger than in the denser central parts of cities. These less dense areas generally do not require the same close spacing of facilities to serve traffic as the areas closer to the central business district.
- For the most part, a single connection between two generators is all that is required. However, in some instances, an additional alternative route might be included where:
  - *Two apparently alternative routes are separated by geographic barriers and each is needed for connection to another intermediate generator or another intersecting route within the same classification category*
  - *One roadway excludes commercial vehicles*
  - *Total traffic volume is not adequately handled by one of the roadways*
  - *One roadway is tolled*
- Ensure that each route terminates at a route of the same or higher functional classification. As each subsequent category in the functional classification hierarchy is identified and added to the system, the continuity of the system must be maintained.
- In rural, sparsely developed areas, the spacing of various functional classification categories is often not a helpful criterion in determining functional classification.
- In most cases, the most direct, most improved and most heavily traveled route should be chosen for connecting medium and small size traffic generators.

*FHWA encourages States to develop their own more detailed and more quantifiable guidelines. The state of Wisconsin has developed robust algorithms taking into account factors of the population of the areas connected by a roadway, land use, spacing and current AADT volumes.*

## 4.3 Good Practices

The following section discusses and recommends a series of good practices that State DOTs may follow to keep the functional classification of its roadways as accurate as possible.

### 4.3.1 Ongoing Maintenance of the Functional Classification System

State DOTs are charged with ensuring that the functional classification of their roadways is kept up-to-date. In addition, FHWA recommends that States update their functional classification system continually as the roadway system and land use developments change. States should also consider reviewing their systems every 10 years to coincide with the decennial census and the adjusted urban area boundary update cycle.

This maintenance process involves ongoing coordination with local planning partners to identify roadways that require changes to their functional classification, due to changes in transportation network and/or land use patterns. These changes can involve:

- Adding newly constructed or extended roadways to the network, which can in turn affect the functional classification of connecting or nearby roadways
- Upgrading the functional classification of an existing roadway due to land use changes or an improvement made to the roadway
- Downgrading the functional classification of an existing roadway due to land use changes, traffic controls that discourage through traffic or other controls that limit the speed and capacity of a road

Actively maintaining the functional classification attributes of roadways will reduce the level of effort needed for the periodic updates. As State DOTs work with their local transportation planning partners on various initiatives such as long-range planning activities and project programming and development, issues related to the functional classification should be kept in mind. Useful questions to ask are the following:

- Have new significant roadways been constructed that may warrant Arterial or Collector status?
- Has any previously non-divided Principal Arterial roadway been reconstructed as a divided facility?
- Has any new major development (such as an airport, regional shopping center major medical facility) been built in a location that has caused traffic patterns to change?
- Has there been significant overall growth that may have caused some roadways to serve more access or mobility needs than they have previously?
- Have any Arterial or Collector roadways been extended or realigned in such a way to attract more through trip movements?
- Has a particular roadway experienced a significant growth in daily traffic volumes?

A key success factor for State DOTs is to have a well-documented process for changing the functional classification of an existing roadway. This process, along with a description of what the functional classification is and why it is important, should be readily accessible on the internet.

Many State DOTs have developed a functional classification change request form (see **Figure 4-1**). These forms ensure that consistent information and evidence supporting such a change are provided. Typically, information — such as the roadway location, the justification for the change and letters or signatures expressing local support — is required.

*Figure 4-1: Minnesota DOT Functional Classification Change Request Form*

| Functional Class Change Request Form | | |
|---|---|---|
| **Date Request Initiated** | **Route Name** | **Route Number** |
| **Total Miles to be Re-classified** | **Begin Point** | **End Point** |
| **Current Classification** | **Proposed Classification** | |
| **County** | **State Project Number** if applicable | **Proposed or Existing Road** (specify which) |
| **Description of the Road Segment** | | |
| **Reason for Change in Classification** | | |
| **Impact on Classification Percentages in the Jurisdiction and Plan for Maintaining Balance** | | |
| **City/County Engineer Signature** | | **Date** |
| **RDC/MPO Board Review Signatures** | | **Date** |
| | | |
| | | |
| | | |
| | | |
| **District Planner/District State Aid Engineer Signature** | | **Date** |
| **Next Steps for the District:**<br>1. Scan signed document to PDF format<br>2. Email PDF file to:<br>• City/County and RDC/MPO who initiated the request and any others as appropriate<br>• Mn/DOT Functional Classification Change contact<br>(As of July 2010, Kim DeLaRosa: kimberlie.delarosa@state.mn.us)<br>*The Mn/DOT contact should also receive a copy of the map (paper or electronic) showing the classification change.* | | |

*Source: Minnesota DOT, Functional Classification, Request to Change Classification; http://www.dot.state.mn.us/roadway/data/html/roadwaydata.html*

When new Local Roads get added to the State's roadway inventory databases, as a good practice, State DOTs should evaluate how closely their roadways fit within each functional classification category based on the percentage guidelines found in Tables 3-5 and 3-6. If any significant differences are found, steps may be taken to either correct or explain them. However, this refinement process should not be conducted simply to keep adding or removing roadways until certain percentage guidelines are met. Bearing in mind that the classification process is as much art as science, it should still be as systematic, reproducible and logical as possible. Additionally, states and their planning partners (to be discussed later) should document their methodology and attempt to follow it as consistently as possible.

## 4.4 Geographic Information Systems

Transportation agencies rely on a variety of up-to-date spatial data to carry out their planning, maintenance and operations responsibilities. The most important element of this, for functional classification purposes, is an accurate GIS-based inventory of all roadways for a given area. This inventory contains the current functional classification of all roadways and AADT estimates to calculate daily VMT.[5] Total mileage and total DVMT can then be calculated for the entire network, independent of functional classification, thereby providing the denominator for the mileage and DVMT percentages by functional classification.

State DOTs identify new roadways and roadway improvements in their State Transportation Improvement Program (STIP). DOTs should maintain basic information such as mileage, functional classification, lanes and traffic forecasts in a Linear Referencing System/GIS format. A variety of other GIS data can be useful in the functional classification evaluation process — this includes land use, major traffic generators and digital ortho-photography.

As DOTs move toward integrated, enterprise-wide GIS-based asset management systems, it is becoming increasingly important to ensure consistency between traditional tabular roadway inventory data and geospatial databases representing the physical roadway network. Some State DOTs have been maintaining tabular databases that contain information on the numerous attributes of a roadway (e.g., number of lanes, speed limit and functional classification).

**Figure 4-2** illustrates the potential consequences of an inconsistency between databases. The example shows the merging of a GIS network and an underlying database containing functional class information. Because the network, as represented in the GIS system, does not correlate completely with the roadway section representation of the non-GIS database, the displayed non-GIS database information appears to be inaccurate.

***Figure 4-2: Example of Shifting due to Inconsistency between Tabular Event Data and Geospatial Data***

*Source: CDM Smith*

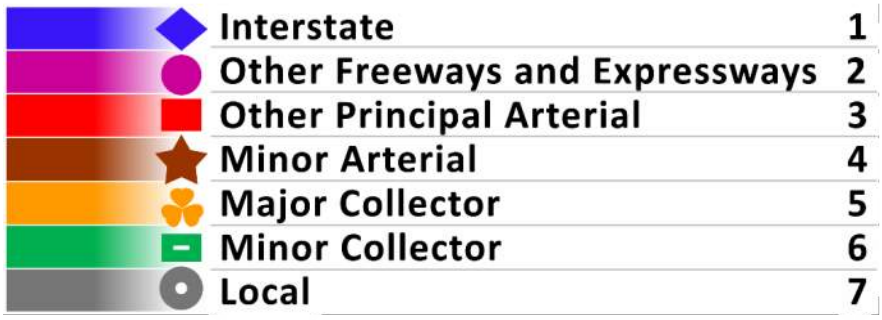
[5] Vehicle miles of travel can be calculated as: DVMT = length in miles * annual average daily traffic volume.

*Today's geospatial technologies allow this data to be easily "viewed" in the context of a spatially accurate map display. Therefore, it is important that the linearly referenced tabular data, when integrated into a state DOT's traditionally separated databases, be dynamically segmented on a routed roadway network and be spatially correct.*

*This issue may become apparent when roadways are mapped and symbolized according to their functional classification. The mapped functional classification designations often stop short or slightly overshoot their proper terminal location.*

As shown above, GIS systems enable roadway segment color coding for validation and public display. An example of a color coding scheme for roadways by functional classification is shown in **Figure 4-3**. If followed, this suggestion would improve future mapping consistency.

*Figure 4-3 Sample Roadway Color Scheme*




*Source: CDM Smith*

### 4.4.1 Proactive Communication and Accessibility of Information

State DOTs should create a 2-way communication network with internal and external users of functional classification information. The unit within the State DOT responsible for maintaining the official functional classification network should keep a list of internal and external users of functional classification information and provide them with guidance and a mechanism for updating functional classifications. Increasingly, enterprise-wide databases and information provided over the internet (either with static PDF maps or more sophisticated interactive, dynamic online mapping applications) allow end-users quick and convenient access to roadway attribute information, including functional classification. Additionally, internal linkages and strong lines of communication with the DOT offices responsible for asset management, system inventories and operations can ensure that updates and changes to their roadway databases are transferred to a master GIS inventory which the functional classification process has access.

## 4.5 Partners in the Functional Classification Process

Whether processing a single functional classification change request or conducting a comprehensive statewide functional classification review in response to the establishment of the updated Adjusted Census Urban Boundaries, a variety of planning partners should be involved to ensure informed consent of the functional classification designation for a State's roadways.

### 4.5.1 Metropolitan Planning Organizations

MPOs are the primary local contact for the DOTs in Urbanized Areas. MPOs may initiate requests for revising the functional classification of a roadway within their planning area, either on their own initiative or on behalf of member jurisdictions. For requests originating from a member jurisdiction, the MPO may conduct an initial review to ensure compliance with functional classification criteria. Typically, MPOs will forward requests along with their recommendation for approval or disapproval to the State DOT unit responsible for maintaining the functional

classification information. In some cases, local governments work directly with the State DOT, with concurrence from the MPO.

### 4.5.2 State DOTs

For the sake of efficiency, a single specific unit with the DOT should be responsible for maintaining the official functional classification designation of all roads within the State. This unit should also be in charge of coordinating with FHWA on matters related to functional classification and be the final State decision-maker for all functional classification issues. The unit should also ensure that all submissions for changes to the functional classification of a roadway have followed the appropriate documented procedures. If the State DOT approves a change, the unit should submit the change, along with supporting information, to the FHWA Division Office for their review and approval. Upon receipt of FHWA approval (or disapproval), the DOT should notify the affected local jurisdiction of the decision.

DOT regional or district offices may be responsible for submitting system revisions for all State highways outside an MPO's planning area and coordinating proposed system revisions for areas within the planning jurisdiction of an MPO.

Once a change has been approved by the FHWA Division Office, the State DOT may revise the official repository of functional classification information and update ancillary systems and work products to reflect the change.

*State DOTs should complete the adjusted urban area boundary process within 1 year of the boundary release date.*

*The functional classification update should be completed within 2 years following the approval of the adjusted urban area boundaries.*

### 4.5.3 Counties and Other Agencies

Counties may be responsible for initiating functional classification changes on roadways under their jurisdiction but outside of an MPO planning area. Counties within an MPO's planning area should coordinate proposed system revisions with the MPO and submit any proposed changes to the State DOT.

In addition to MPOs, counties and State DOTs, other local government and regional entities — such as cities, rural transportation planning organizations, regional development commissions, councils of government, etc. — may also submit changes and participate in the update process.

## 4.6 Suggested Procedural Tasks

This section of the guidance outlines a series of recommended technical and procedural steps to review the functional classification of a State's roadway network. These tasks should be conducted through a collaborative effort between each State DOT and its local planning partners. In an ideal setting, the State and its partners should assess whether its roadways are properly classified on a continuous basis. Because new roads and major land development projects take years of advance planning, State DOTs should anticipate and respond to functional class adjustments in tandem with development activity. Additionally, the entire network of roadways should be reviewed after the development of the adjusted urban area boundaries. For those State DOTs that actively maintain and update the functional classifications of their roadway system, this formal process should be rather straightforward.

The following suggested procedures offer the most robust and detailed steps in the update process (**Figure 4-4**). Even for the most challenging of circumstances, the process of official review and submittal of the updated functional classification

system should take less than 24 months to complete from the time of FHWA approval of the adjusted urban area boundaries.

*Figure 4-4: Good-Practice Timeframe for Functional Classification Updates in Months*

| Task | Mo. 1 | Mo. 2 | Mo. 3 | Mo. 4 | Mo. 5 | Mo. 6 | Mo. 7 | Mo. 8 | Mo. 9 | Mo. 10 | Mo. 11 | Mo. 12 | Mo. 13 | Mo. 14 | Mo. 15 | Mo. 16 | Mo. 17 | Mo. 18 | Mo. 19 | Mo. 20 | Mo. 21 | Mo. 22 | Mo. 23 | Mo. 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Mobilize the Functional Classification Update Process:** | | | | | | | | | | | | | | | | | | | | | | | | |
| 1a. Establish FC Review Team | X | X | | | | | | | | | | | | | | | | | | | | | | |
| 1b. Generate data, maps, etc. for use by local planning partners | | | X | X | | | | | | | | | | | | | | | | | | | | |
| 1c. Contact local planning partners | | | X | X | | | | | | | | | | | | | | | | | | | | |
| **2. Work with Local Planning Partners in Functional Classification Review Process:** | | | | | | | | | | | | | | | | | | | | | | | | |
| 2a. Deliver data and documents to local planning partners | | | | | X | | | | | | | | | | | | | | | | | | | |
| 2b. Work with Local Planning Partners in Functional Classification Review Process | | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | | | | | | | |
| **3. Make Functional Classification Changes:** | | | | | | | | | | | | | | | | | | | | | | | | |
| 3a. Gather, review, and incorporate all proposed changes | | | | | | | | | | | | | | | | | | X | X | X | | | | |
| 3b. Submit draft functional classification network information to FHWA | | | | | | | | | | | | | | | | | | | | | X | | | |
| 3c. Incorporate Functional Classification Changes into Enterprise Systems | | | | | | | | | | | | | | | | | | | | | | X | X | X |

*Source: CDM Smith*

States and their partners should re-evaluate the functional classification of the road system at least every 10 years, coinciding with the decennial census. FHWA highly recommends that this process be completed within 2 years of the formal approval of the adjusted urban area boundaries so that all States are coordinated with the same census. FHWA considers the State DOT to be the authority during this process and relies upon it to take an active leadership role.

FHWA Division Offices may correspond with State DOTs to formally launch the functional classification system review. This notice, which can accompany the approval of the adjusted urban area boundaries, reminds the State DOTs of their responsibilities, and provide information regarding how and when the functional classification information should be submitted.

The following listing presents a functional classification review process with a 24-month completion timeframe, following approval of the adjusted urban area boundaries.

1. **Mobilize the Functional Classification Update Process**

    a. **Form a team to specifically guide the functional classification review and update process.** Establish a functional classification review team composed of State and regional planners that have a vested interest in the final delineation of the functional classification designations. Individuals with experience in Federal transportation funding, highway design, traffic operations and the metropolitan

transportation planning process should have a seat on the committee. This review team should be responsible for reviewing proposed changes to the functional classification network from local planning partners.

b. **Generate data, maps, etc. for use by local planning partners.** Incorporate approved adjusted urban area boundaries in the enterprise GIS system and produce functional classification maps at a variety of scales that are relevant to local planning partners. These may include statewide, district, county and municipal scales.

c. **Contact local planning partners.** Contact various local planning partners to explain the task at hand and request their participation. MPO staff should be key partners, and other regional planning agencies, counties and/or local municipalities should be consulted as necessary. For many areas in which engaging local partners can be difficult, it is appropriate for State DOTs to be responsible for reviewing the functional classification of roadways.

2. **Work with Local Planning Partners in the Functional Classification Review Process**

   a. **Deliver data and documents to local planning partners.** Transmit the maps described in #1b (and/or GIS data used to make such maps) to local planning partners. This transmittal should include specific instructions in terms of data formats, spatial accuracy, update processes and expected completion dates. The functional classification guidance document should also be shared with everyone involved in this process. A strong emphasis should be placed on transmitting the data in a timely fashion. In-person or video conference meetings can be extremely valuable to ensure proper communication and mutual understanding.

   b. **Work with Local Planning Partners.** As necessary, a State DOT will work with the local planning partners to ensure that the functional classification review and update process meets their expectations. In urban areas, close collaboration with MPOs is extremely important. Regional workshops hosted by MPOs can be valuable in ensuring that there is a common understanding of the process and the schedule for delivery. While the exact details surrounding information exchange may vary from state to state, the local planning partners are generally expected to review the current functional classification network, in the context of the newly revised adjusted urban area boundaries and submit a set of proposed changes to the functional classification of roadways in their area. Whether a large or minimal number of changes, sufficient explanation should be provided to justify each recommended functional classification change (see Table 3-1: Characteristics of Urban and Rural Arterials for examples). In many areas, proposed functional classification changes require formal MPO approval.

3. **Make Functional Classification Changes**

   a. **Gather, review and incorporate all proposed changes.** The State DOT must review a local or regional transportation agency's proposed changes to ensure that they are reasonable. Special attention should be paid to the consistency of classifications at regional boundaries, overall route continuity, spacing and mileage and DVMT percentage guidelines. In addition, DOTs should coordinate with neighboring States to ensure consistency at State boundaries. If possible, potential system-wide changes should be made in a "test" environment to avoid affecting the official enterprise system during the analysis of proposed changes. Follow-up meetings may be necessary to resolve issues discovered by the DOT.

   b. **Submit draft functional classification network information to FHWA.** Once the State DOT has successfully reviewed and concurred with all recommend functional classification changes, it should submit the draft final functional classification network to its FHWA Division Office for final approval. The specific geospatial format of data delivery should be worked out between the State DOT and its FHWA Division. Separately, hard copy maps at a scale sufficiently small enough to evaluate the functional classification network should be provided. Should the Division Office have any issues with the proposed functional classification network, the State DOT and the affected local planning entities should meet to decide upon a mutually agreeable solution. *Note: Any changes to the National Highway System (NHS) will need to be coordinated with FHWA HQ Office of Planning, Environment and Realty. Approval of changes to the NHS happens in FHWA HQ, and the procedures for modifications are detailed in 23 CFR 470.*

   c. **Incorporate Functional Classification Changes into Enterprise Systems** Once FHWA approval has been received, any proposed functional classification changes should be made into the enterprise database systems that house the official records of roadway functional classification. These functional classification changes should be forwarded to FHWA HEPP (Planning) for inclusion into the HEPGIS database and also be incorporated into the June 15th HPMS data transmittal.

An example functional classification table from Massachusetts can be found in **Table 4-1.**

*Table 4-1: Example Massaschusetts Roadway Functional Classification Table*

| Ref# | City/Town | Roadway | From | To | Existing Classification | Proposed Classification | Distance (Miles) | Map |
|---|---|---|---|---|---|---|---|---|
| 1 | Blandford | Huntington Rd | Chester Rd / North St | Huntington Town Line | Rural Major Collector | Local Road | 3.80 | 1 |
| | Huntington | Blandford Hill Rd | Route 20 | Blandford Town Line | Rural Major Collector | Local Road | 0.83 | |
| 2 | Blandford | Cobble Mountain Rd | Russell Town Line | Birch Hill Rd | Rural Major Collector | Local Road | 2.80 | |
| | Blandford | Birch Hill Rd | Route 23 | Cobble Mountain Rd | Rural Major Collector | Local Road | 0.24 | |
| | Granville | Wildcat Rd | Cobble Mountain Rd | Old Westfield Rd | Rural Major Collector | Local Road | 1.94 | |
| | Granville | Phelon Rd | North Lane #2 | Cobble Mountain Rd | Rural Minor Collector | Local Road | 1.78 | |
| | Granville | Cobble Mountain Rd | Phelon Rd | Russell Town Line | Rural Minor Collector | Local Road | 1.30 | |
| | Russell | Cobble Mountain Rd | Blandford Town Line | Granville Town Line | Rural Major Collector | Local Road | 0.33 | |
| | Chester | Bromley Rd | Huntington Town Line | Skyline Trail | Local Road | Rural Minor Collector | 3.14 | |
| | Huntington | Bromley Rd | Chester Town Line | Route 112 | Local Road | Rural Minor Collector | 1.79 | |
| 4 | Huntington | Country Rd | Route 112 | Route 66 | Local Road | Rural Major Collector | 3.04 | |
| 5 | Holyoke | Bobala Rd | Whitney Ave | West Springfield Town Line | Local Road | Urban Minor Collector | 0.83 | 2 |
| | West Springfield | Interstate Dr | Holyoke Town Line | Prospect Ave | Local Road | Urban Minor Collector | 0.53 | |
| 6 | West Springfield | Prospect Ave | Westfield Town Line | Bernie Ave | Urban Minor Collector | Local Road | 2.18 | |
| | West Springfield | Morgan Rd | Prospect Ave | Amostown Rd | Urban Minor Collector | Local Road | 1.24 | |
| | West Springfield | Amostown Rd | Morgan Rd | Pease Ave | Urban Minor Collector | Local Road | 0.65 | |
| | Westfield | Old Holyoke Rd | East Mountain Rd | West Springfield Town Line | Urban Minor Collector | Local Road | 0.60 | |

Description of Changes

1. *Huntington Road in the Town of Blandford and Blandford Hill Road in the Town of Huntington no longer provide access to through traffic. Additionally, portions of this roadway are unsurfaced. For this reason, it is recommended that this roadway be downgraded from a Rural Major Collector to a Local Road.*
2. *The Department of Homeland Security recently closed access to Cobble Mountain Road in the Town of Blandford in order to increase security of the Cobble Mountain Reservoir. Consequently, it is recommended that all roadways discussed in Reference #2 in Table 1 be downgraded to Local Roads due to the inaccessibility and lack of continuity of the roadway functional classification system.*

*Sample functional classification changes listed, with examples of supporting justification*

**Table 4-2** presents good practice milestones for the overall development and submittal process.

*Table 4-2: Key Milestones for Development and Submittal of the Functional Classification Network*

| Event | Month Following FHWA Adjusted Urban Area Boundary Approval |
|---|---|
| State DOT launches the formal functional classification update process after FHWA approves the State's adjusted urban area boundaries | Month 1 |
| State DOT works with planning partners to review and propose changes to the functional classification of its roadways | Months 2-17 |
| State DOT gathers and processes all proposed function classification changes and submits draft final data and/or maps to FHWA Division Office for review | Months 18-21 |
| DOT incorporates updates into planning process and related databases to ensure submittal of updated functional classification in upcoming June 15th HPMS submittal | Months 22-24 |

# SECTION 5. APPLICATIONS

## 5.1 Performance

This section of the guidance document details a variety of ways functional classification data may be used by Federal, State, local and other entities. Transportation agencies organize many of their administrative, budgetary, operations and maintenance activities around functional classification. Functional classification is also an important organizing element in data management and highway statistics reporting.

Currently, Federal and State funding programs assign a substantial share of capital and operating resources to the Principal Arterial system, in comparison to lower functional classifications. Likewise, expectations for condition and performance tend to be higher for the higher functional classifications. There is risk associated with not investing in and maintaining the system that carries the most people and goods.

## 5.2 Data Needs and Reporting

Statistics derived from the Federal roadway databases are organized around functional classification. This data are used in a number of ways, including reporting on the condition of the nation's roadways to Congress and in other highway statistics reports and studies.

### 5.2.1 Impact of Functional Classification Changes

The changes brought about in the functional classification categories with this updated guidance document will lead to more uniform and more accurate classification of roadways across the country. This will improve the tracking, monitoring, and reporting on the performance of the system and specific system elements at a national and State level.

## 5.3 Secondary Functional Classification Uses

Functional classification is used by transportation agencies in a number of ways, from design to maintenance. The hierarchal system correlates the purpose of a roadway with all the external factors transportation agencies handle. The functional classification of a roadway is often a factor in decision-making by transportation agencies.

- **Program and Project Prioritization** – In a climate of constrained resources, functional classification often plays a role in the prioritization of expenditures. Several transportation agencies have developed separate funding programs to support the roadway systems that serve their longest distance travel, a large proportion of which comprises the Principal Arterial system.
- **Asset Management** – Functional classification plays a role in transportation agencies' asset management programs, as agencies generally work to preserve

and protect their most important assets — those that serve the most people and goods.

- **Safety Programs** – Functional classification is used by transportation agencies to evaluate the safety of their roadways and implement safety improvement programs. Agencies consider the type of roadway in evaluating the significance of crash rates. The typical safety improvement may also vary widely depending on the functional classification of a roadway. For example, speed reduction or signage improvements may be more effective in reducing crashes on a Local Road than on an Arterial.
- **Highway Design** – There is a correlation between functional classification and design. As an illustration, lower class roadways have lower speed limits, narrower lanes, steeper curves, etc., while higher class roadways have higher speed limits, wider lanes and fewer sharp curves. The relationship between functional classification and highway design is discussed in the following section (Subsection 5.4.1).
- **Bridge programs** – Functional classification often plays a key role in a States' bridge program. For example, some States have set thresholds, such as a functional classification of Local with low traffic volume, at which 1-lane bridges are acceptable.
- **Traffic control** – Some transportation agencies may look to functional class to determine the most appropriate intersection control measure to use.
- **Maintenance** – Functional classification often plays a role in resurfacing cycles, which is related to asset management and project prioritization. The classification of a roadway also impacts general maintenance and snow/ice removal in inclement weather.

## 5.4 Highway Design

### 5.4.1 The Relationship between Functional Classification and Design

Functional classification does not dictate design; however, the two influence one another. There is a great deal of latitude in the design of a roadway relative to its functional classification.

Transportation agencies may maintain their own roadway typology. But it is also important that the Federal functional classification system (e.g., FHWA reporting guidelines) be followed. Secondary roadway typologies developed by transportation agencies can be descriptive of how an agency wants vehicles to interact in different settings. Some States, for example, allow for local control over design standards in roadway-dense areas. This is essentially a form of context sensitive solutions (CSS).[6]

[6] Context sensitive design describes a process and practice that considers both the immediate environment of the roadway and the transportation needs of the communities it serves. For more information, see http://contextsensitivesolutions.org.

The following presents a summary of how key resources available on functional classification can work in concert with livable and walkable communities.

#### 5.4.1.1 AASHTO Green Book and Flexibility in Highway Design

Although States' design standards are often based on the American Association of State Highway and Transportation Officials (AASHTO) Green Book, FHWA's *Flexibility in Highway Design* document illustrates flexibility options for States to tailor their designs to incorporate community values while safely and efficiently moving people and goods.

The AASHTO Green Book and other design manuals recognize the relationship between highway functional classification and design criteria. The AASHTO Green Book states that, "The first step in the design process is to define the function that the facility is to serve. The level of service required to fulfill this function for the anticipated volume and composition of traffic provides a rational and cost-effective basis for the selection of design speed and geometric criteria within the range of values available to the designer (for the specified functional classification). The use of functional classification as a design type should appropriately integrate the highway planning and design process."

The Green Book explains that functional classification decisions are made well before an individual project is selected to move into the design phase. This decision is made on a system-wide basis by cities, counties or State DOTs or MPOs as part of their transportation planning process. Because these decisions require considerable lead time, the functional classification of a roadway often represents a decision made years before the road is built. After a functional classification has been assigned to a roadway, however, there is still a degree of flexibility in the major controlling factor of design speed. There are no "cookie-cutter" designs for roadways. Instead, there is a range of geometric design options available.

#### 5.4.1.2 Livability

By FHWA definition, "Livability is about tying the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, and safe streets." The term captures and recognizes the pervasive influence of transportation in our daily lives and provides a justification for transportation investments that address broader social goals such as quality of life. Specific investments include expanding the use of Intelligent Transportation System (ITS) technologies, quiet pavements and Travel Demand Management approaches in system planning and operations.

FHWA's *Livability in Transportation Guidebook* cautions that functional classification-based designs may not be responsive to context. The report notes the traditional association of functional classification with the movement of vehicles, but it also notes the historical lack of recognition regarding the influence of land use density and mix on the feasibility and desirability of walking, as well as the influence of land use density and mix on setting operating speeds that are appropriate for the level of pedestrian activity present. The report describes corridor re-design initiatives that have preserved mobility for vehicles and enhanced access for travel by foot. These initiatives have produced, when considering all modes, including bicyclists, pedestrians, transit users, a more optimal outcome on the mobility-access continuum.

### 5.4.1.3 Smart Transportation Guidebook

The *Smart Transportation Guidebook: Planning and Designing Highways and Streets that Support Sustainable and Livable Communities, New Jersey and Pennsylvania Departments of Transportation, March 2008*, recommends an approach to roadway planning and design that tailors transportation investments to the specific needs of each project. The ultimate goal of the guidebook is to integrate the planning and design of streets and highways in a manner that fosters development of sustainable and livable communities. The guidebook proposes a new roadway typology to design roadways that better reflect their role in the community and the larger transportation network. The typology (Table 5.1 in the Smart Transportation Guidebook) is shown below as **Figure 5-1**. This scheme focuses more narrowly on the characteristics of access, mobility and speed. And, the guidebook emphasizes that this typology should be used only as a planning and design "overlay" for individual projects and should not replace the traditional functional classification system.

***Figure 5-1: "Roadway Categories" from the Smart Transportation Guidebook, March 2008***

| Roadway Class | Roadway Type | Desired Operating Speed (mph) | Average Trip Length (mi) | Volume | Intersection Spacing (ft) | Comments |
|---|---|---|---|---|---|---|
| Arterial | Regional | 30-55 | 15-35 | 10,000-40,000 | 660-1,320 | Roadways in this category would be considered "Principal Arterial" in traditional functional classification. |
| Arterial | Community | 25-55 | 7-25 | 5,000-25,000 | 300-1,320 | Often classified as "Minor Arterial" in traditional classification but may include road segments classified as "Principal Arterial." |
| Collector | Community | 25-55 | 5-10 | 5,000-15,000 | 300-660 | Often similar in appearance to a community arterial. Typically classified as "Major Collector." |
| Collector | Neighborhood | 25-35 | <7 | <6,000 | 300-660 | Similar in appearance to local roadways. Typically classified as "Minor Collector." |
| Local | Local | 20-30 | <5 | <3,000 | 200-660 | |

*Source: Pennsylvania Department of Transportation*

The guide addresses design options for roadway attributes such as:

- Travel lane width
- A shift to designing for desirable operating speed versus design speed
- Shoulder width
- On-street parking
- Bicycle facilities
- Medians
- Intersections (including turn radii)
- Pedestrian facilities
- Landscaping
- Access and spacing

The guidebook describes seven prototypical development types and the design attributes appropriate for each, by roadway classification. The design options for a Community Arterial (row 2 from Figure 5-1 above) are shown in **Figure 5-2.**

Many States and localities have adopted policies that aim to consider the needs of all roadway users. Such policies have been referred to as 'Complete Streets' policies. The PennDOT Smart Transportation Guide has been identified as a good example of addressing Complete Streets issues in the American Planning Association Report #559, "Complete Streets: Best Policy and Implementation Practices."

*This guidance document can be found at: https://www.dvrpc.org/reports/08030A.pdf*

***Figure 5-2: Community Arterial Roadway Design Guidelines in Smart Transportation Guidebook***

| Community Arterial: | Rural | Suburban Neighborhood | Suburban Corridor | Suburban Center | Town/Village Neighborhood | Town/Village Center | Urban Core |
|---|---|---|---|---|---|---|---|
| Lane Width[1] | 11' to 12' | 10' to 12' (14' outside lane if no shoulder or bike lane) | 11' to 12' (14' to 15' outside lane if no shoulder or bike lane) | 10' to 12' (14' outside lane if no shoulder or bike lane) | 10' to 12' (14' outside lane if no shoulder or bike lane) | 10' to 12' (14' outside lane if no shoulder or bike lane) | 10' to 12' (14' outside lane if no shoulder or bike lane) |
| Paved Shoulder Width[2] | 8' to 10' | 4' to 8' if no parking | 8' to 10' | 4' to 6' (if no parking or bike lane) | 4' to 6' (if no parking or bike lane) | 4' to 6' (if no parking or bike lane) | 4' to 6' (if no parking or bike lane) |
| Parking Lane[3] | NA | 7' to 8' parallel | NA | 8' parallel; see 7.2 for angled | 7' to 8' parallel; see 7.2 for angled | 7' to 8' parallel; see 7.2 for angled | 7' to 8' parallel; see 7.2 for angled |
| Bike Lane | NA | 5' to 6' (if no shoulder) | 5' to 6' (if no shoulder) | 5' to 6' | 5' to 6' | 5' to 6' | 5' to 6' |
| Median | 4' to 6' | 12' to 18' for LT; 6' to 8' for pedestrians | 12' to 18' for LT; 6' to 8' for pedestrians | 12' to 18' for LT; 6' to 8' for pedestrians | 12' to 18' for LT; 6' to 8' for pedestrians | 12' to 18' for LT; 6' to 8' for pedestrians | 12' to 18' for LT; 6' to 8' for pedestrians |
| Curb Return | 25' to 50' | 25' to 35' | 25' to 50' | 20' to 40' | 15' to 30' | 15' to 35' | 15' to 40' |
| Travel Lanes | 2' to 4' | 2' to 4' | 2' to 4' | 2' to 4' | 2' to 4' | 2' to 4' | 2' to 4' |
| Clear Sidewalk Width | NA | 5' | 5' to 6' | 6' | 6' to 8' | 6' to 10' | 8' to 14' |
| Buffer4 | NA | 6'+ | 5' to 10' | 4' to 6' | 4' to 6' | 4' to 6' | 4' to 6' |
| Shy Distance | NA | NA | NA | 0' to 2' | 0' to 2' | 2' | 2' |
| Total Sidewalk Width | NA | 5' | 5' to 6' | 10' to 14' | 10' to 16' | 12' to 18' | 14' to 22' |
| Desired Operating Speed | 35-55 | 30-35 | 35-50 | 30 | 25-30 | 25-30 | 25-30 |

1 12' preferred for regular transit routes, and heavy truck volumes > 5%, particularly for speeds of 35 mph or greater.
2 Shoulders should be installed in urban contexts only as part of a retrofit of wide travel lanes, to accommodate bicyclists.
3 7' parking lanes on this roadway type to be considered in appropriate conditions
4 Buffer is assumed to be planted area (grass, shrubs and/or trees) for suburban neighborhood and corridor context, street furniture/car door zone for other land use contexts. Min. of 6' for transit zones.

*Sources for values in matrix: AASHTO Green Book (2001), and ITE "Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities" (2006).*

*Source: Delaware Valley Regional Planning Commission*

### 5.4.1.4 CSS in Designing Major Urban Thoroughfares for Walkable Communities

*ITE's Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities, 2006* is another valuable resource for practitioners. This report advances the successful use of context sensitive solutions in the planning and design of major urban thoroughfares for walkable communities. The document, which can be found at https://www.epa.gov/sites/default/files/2015-11/documents/rp036.pdf, provides guidance on how to apply CSS concepts and principles to create roadway improvement projects consistent with their physical settings.

Specifically, this work describes the principles, benefits and importance of CSS in transportation projects; identifies how CSS principles can be applied in the planning and development of improvements to major urban thoroughfares; describes the relationship, compatibility and tradeoffs that may be appropriate when balancing the needs of users, adjoining land uses, environment and community interests; presents guidance on how to identify and select appropriate thoroughfare types and corresponding design parameters to best meet the needs of a particular context; and provides criteria for specific roadway elements along with guidance on balancing stakeholder, community and environmental needs and constraints.

## 5.5 Assessment of Functional Classification Systems

While the Federal functional classification categories play an important role in Federal, State, regional and local transportation planning, there is an emerging trend in transportation to develop new classification categories with which to group and describe roadways. At the heart of this trend is the recognition that roadways do more than move traffic. Roadways are the basic skeleton of a community and are travelways for other modes of transportation, including walking, bicycling and public transportation. The following section describes other functional classification systems in use and touches upon emerging concepts in the realm of roadway functional classification.

## 5.6 Emerging/Other Functional Classification Systems

While most States only use the FHWA functional classification scheme, several States have developed additional or alternative classification systems to suit their planning and engineering needs. Reasons for developing alternative functional systems include the need to incorporate unique roadway types or roadways that are not part of the Federal-aid system and the need to develop a system to meet the unique administrative or jurisdictional requirements of a State.

Oregon DOT is one State that has employed a separate classification system. This alternate system has only four categories (Interstate, Statewide, Regional and District). While there is not a single translation to convert the Federal functional classification categories to the four State categories, **Table 5-1** represents a general "rule of thumb" that Oregon DOT uses for the translation between the two systems.[7]

*Table 5-1: Oregon DOT's Classification System*

| State Classification System (SCS) | Description | Corresponding Functional Classifications |
|---|---|---|
| Interstate Highways | Provide connections to major cities, regions or other states; regional trips within metro areas. | • Urban or Rural Interstate |
| Statewide Highways | Provide connection to larger urban areas, ports and recreational areas that are not directly served by interstate highways | • Urban or Rural Principal Arterial – Other Freeway Expressway<br>• Urban or Rural Other Principal Arterial |
| Regional Highways | Provide links to regional centers, statewide or interstate highways or economic or activity centers of regional significance | • Urban or Rural Minor Arterial |
| District Highways | Facilities of county-wide significance function largely as county and city Arterials or Collectors | • Urban or Rural Minor Arterial<br>• Urban or Rural Major Collector<br>• Rural Minor Collector |

[7] Department of Transportation, Guidelines for Updating Federal Aid Urban Boundaries and Functional Classification, July 2003 http://www.oregon.gov/ODOT/TD/TDATA/rics/docs/InstructionsForFCReview.pdf?ga=t

With the institutionalization of new concepts such as sustainability, smart growth, new urbanism, and complete streets comes a different perspective on transportation as a whole and on roadways in particular. These movements have shifted the dialogue from the movement of automobiles to the mobility of persons. Some States have developed roadway design guidelines that decouple the Federal functional classification system from the specific design needs of a roadway that are determined through a project development process.

The MassDOT Project Development and Design Guide[8] provides designers with options that reflect the needs of a considerable range of prevailing land uses and roadway user types. While the guide notes the role that the Federal functional classification system plays in ensuring mobility, access and connectivity, as well as its role in determining funding eligibility, it also points out that MassDOT's guidance on access control, cross-sections, sight distance, design speeds etc. reflect the appropriate level of flexibility that the department applies to roadway design. As an example, MassDOT provides ranges of acceptable design speeds based on roadway type (Arterial, Collector) and subtype, as well as area type (Rural, Suburban and Urban) and subtype.

The Idaho DOT also embraces this new concept. The DOT's August 2009 Technical Report 5 entitled "Highway System Classification (Functional Classification)"[9] states that the department has come to a new understanding that *"streets should connect to their surrounding environment through adjustments in highway/street elements and functions."* This approach bucks the traditional 'one size fits all' approach to roadway design that has been effective in supporting vehicular mobility.

The new approach of multimodal street design encompasses four distinct elements or zones (the travelway zone, the pedestrian zone, the context zone and the intersection zone). Each element works with the others to accommodate the needs of multiple modes in harmony with their abutting land uses, taking into account environmental, historical preservation and economic development objectives. Idaho's new functional street classification system is consistent with other national good practices which recognize the importance of the different transportation functions that are accommodated within the roadway's right of way. Increasingly, municipal thoroughfare plans are breaking the traditional "Arterial, Collector, Local" mold and using alternate typology. These typologies expand the rural/urban construct into more granular categories that recognize aesthetic and neighborhood-level concerns and explicitly account for all modes of transportation.

Idaho's proposed functional street classification system is consistent with other national practices, which are often found at the local level. **Figure 5-3** illustrates the proposed multimodal functional street classification system (which includes

[8] The MassDOT Project Development and Design Guide, http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/ManualsPublicationsForms/ProjectDevelopmentDesignGuide.aspx

[9] Technical Report 5, Highway System Classification, August 12, 2009, http://itd.idaho.gov/transportation-performance/lrtp/reports/Tech%20Rept%205-Highway%20Systems%20Classification.pdf

the categories of Freeways, Boulevards, Avenues and Streets) and relates it to the conventional street classification system. Idaho has other classes as well.

*Figure 5-3: Idaho DOT's Proposed Redefinition of Functional Street Classifications*

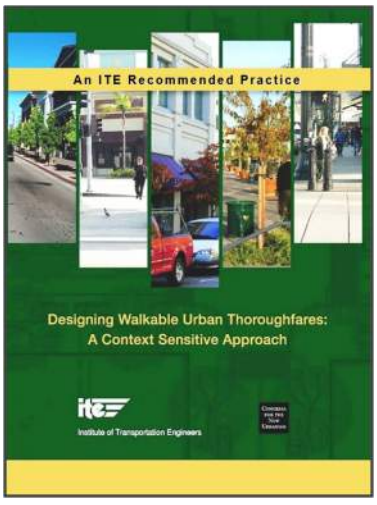
| Functional Street Classification | | Principal Arterial | Minor Arterial | Collector | Local |
|---|---|---|---|---|---|
| Freeway | | X | X | X | X |
| Boulevard | Urban | X | X | X | |
| | Suburban | X | X | X | |
| | Transit | X | X | X | |
| | Industrial | X | X | X | |
| | Couplet | X | X | X | |
| Avenue | Urban | X | X | X | |
| | Suburban | X | X | X | |
| | Transit | X | X | X | |
| | Industrial | X | X | X | |
| | Couplet | X | X | X | X |
| Street | Urban | X | X | X | X |
| | Suburban | X | X | X | X |

*Source: Idaho Department of Transportation*

### *Idaho Department of Transportation Statewide Transportation Systems Plan*

The broadening of road typologies and design options within the context of functional classification is not limited to a few DOTs. The Institute of Traffic Engineers' *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities* [10] supports and extends this way of thinking. (**Figure 5-4**) In addition, the ARTIST (Arterial Streets Toward Sustainability)[11] concept and the United Kingdom's *Manual for Streets* [12] offer new ways of categorizing roadways that support short-distance mobility and access with design options to accommodate a variety of modes and roadway treatment options.

*Figure 5-4: ITE Report: Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities*




*Source: Institute of Transportation Engineers*

10 Institute of Traffic Engineers, Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities, March, 2010.
11 Lund University, Department of Technology and Society, Arterial Streets Toward Sustainability, Sweden, http://www.tft.lth.se/english/research/traffic_safety/artists/?L=2
12 Department for Transport, Manual for Streets, March 29, 2007 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3891/pdfmanforstreets.pdf

## 5.7 Future Trends

Additionally, a significant change is occurring in the transportation industry related to the development of improvement projects focusing on the performance of the facility. Roadway performance can be measured in a number of ways, including mobility, speed, safety and surface condition, as well as by person throughput and the accommodation of multiple transportation modes. Increasingly, the character and context of the environment within which the roadway is located, as well as the expectation of its performance on a number of measures, are driving the design of roadway improvement projects. Gone are the days of simply verifying a roadway's functional classification and applying a "one-size-fits-all" approach to the application of design standards of a roadway improvement project.

This movement in transportation planning to categorize roadways beyond the traditional "Arterial, Collector, Local" spectrum will continue to evolve. Continuing research and dialogue among transportation practitioners will deepen the understanding of what these alternatives can offer to a functional classification system that is relevant and meaningful at the national level.

# SECTION 6. URBAN BOUNDARIES

## 6.1 Introduction

Many Federal transportation programs and policies rely upon a clear and well-documented distinction between urban and rural areas. Urban and rural areas are explicitly defined by the Census Bureau according to specific population, density and related criteria. From these technical definitions, irregularities and boundaries that are separated from or inconsistent with transportation features may result. For transportation purposes, States have the option of using census-defined urban boundaries exclusively, or they may adjust the census-defined boundaries to be more consistent with transportation needs. States, in coordination with local planning partners, may adjust the urban area boundaries so fringe areas having *"...residential, commercial, industrial, and/or national defense significance"* (as noted in the December 9, 1991 Federal-Aid Policy Guide), are included.

*The authority to establish the geographic definitions is set forth in Section 101(a) of Title 23 U.S.C. and subsequent guidance has been provided in 23 CFR 470 and in FHWA policy documents.*

Reasons for adjusting urban area boundaries for transportation planning purposes often relate to a need for consistency or geographic continuity. For example, it may be logical to include, as part of an urban area, a roadway that is used by urban residents but is located just outside the official Census Bureau urban area boundary. Or, it may make sense to designate as urban a rural pocket in the middle of an urban area (or to address alternating patterns of rural and urban-designated areas). Additionally, large, low-density land uses on the urban fringe that serve the urban population such as airports, industrial parks, regional shopping centers and other urban attractions may also be included in an urban area.

On October 14, 2008, FHWA issued the memorandum "Updated Guidance for the Functional Classification of Highways" which stated, "Functional classification should not automatically change at the rural/urban boundary." This extended the 1991 Addendum to the 1989 guidance *Highway Functional Classification: Concepts, Criteria and Procedures,* which provided "greater flexibility for deciding on an appropriate place for changing the functional classification when rural routes cross an urban boundary." The 2008 memorandum proposed further study of functional classification and urban area boundary adjustment process which led to this document.

This section is intended to assemble and complete all previous policy given by FHWA for establishing urban area boundaries. It has three main objectives:

1. To provide a clear definition of adjusted urban area boundaries and other related boundaries
2. To define a set of technical and administrative processes by which States, working in conjunction with local planning partners, could develop adjusted urban areas based upon urban areas as defined by the US decennial census
3. To establish data delivery protocols from the States to FHWA

## 6.2 Defining Urban and Rural

*The concept of adjusted urban areas has evolved since the issuance of the Federal guidance on the topic in Chapter 4 of FHWA's Federal-Aid Policy issued in December 1991.*

The terms "urban" and "rural" mean different things to different people, and in many cases, their definitions differ depending upon the context in which they are used. At their core, the concepts of urban and rural are clear; urban areas are considered to have *dense* development patterns, while rural areas are considered to have *sparse* development patterns (see **Figure 6-1**). What has changed over the years, however, is the terminology used and the technical definitions of "dense" and "sparse".

*Figure 6-1: Prototypical Urban and Rural Areas*


*Source: CDM Smith*

### 6.2.1 Census Definitions

The Census Bureau's urban-rural classification is fundamentally a delineation of geographical areas, identifying individual urban areas as well as the rural portion of the nation. The Census Bureau's urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. The Census Bureau delineates urban areas after each decennial census by applying specified criteria to decennial census and other data.

Prior to the 2020 Census, the boundaries of the urban areas were defined primarily by using measures based on population counts and residential population density, and also by using measures based on criteria that account for non-residential urban land uses, such as commercial, industrial, transportation, and open space that are part of the urban landscape.

With the 2020 Census, urban areas now comprise a densely developed core of census blocks that meet minimum housing unit density requirements (replacing the previous use of population density), along with adjacent territory containing non-residential urban land uses as well as other lower density territory included to link outlying densely settled territory with the densely settled core.

To qualify as an urban area, the territory must encompass at least 2,000 housing units or at least 5,000 persons. The term "rural" still encompasses all population, housing, and territory not included within an urban area. Geographic entities, such as metropolitan areas, counties, minor civil divisions (MCDs), places, and census tracts often contain both urban and rural territory, population, and housing units."

## 6.2.2 FHWA Definitions

There are differences in the way FHWA and the Census Bureau define and describe urban and rural areas. The Census Bureau defines urban areas solely for the purpose of tabulating and presenting Census Bureau statistical data. A number of Federal agency programs use the census definitions as the starting point (if not the basis) for implementing and determining eligibility for a variety of their funding programs.

According to 23 U.S.C. 101(a)(35), areas with a population of 5,000 or more can qualify as urban. According to 23 U.S.C. 101(a)(36), areas with a population of 50,000 or more qualify as urbanized. Furthermore, FHWA refers to the urban areas with populations between 5,000 and 49,999 as *Small Urban Areas*[13]. These differences are presented in **Table 6-1** and **Table 6-2**.

*Table 6-1: US Census Bureau Urban Area Types Defined by Population range*

| Census Bureau Area Definition | Population Range |
|---|---|
| Urban Area | At least 5,000 persons or 2,000 housing units |

*Table 6-2: FHWA Urban Area Types Defined by Population Range*

| FHWA Area Definition | Population Range | Allowed Urban Area Boundary Adjustments |
|---|---|---|
| Urban Area | 5,000+ | Yes |
| Small Urban Area | 5,000-49,999 | Yes |
| Urbanized Area | 50,000+ | Yes |

Federal transportation legislation allows for the outward adjustment of Census Bureau defined urban boundaries (of population 5,000 and above) as the basis for development of adjusted urban area boundaries for transportation planning purposes, through the cooperative efforts of State and local officials. By Federal rule, these adjusted urban area boundaries must encompass the entire census-designated urban area (of population 5,000 and above) and are subject to approval by the Secretary of Transportation (23 USC 101(a) (35) - (36) and 49 USC 5302(23) - (24)).

For the purposes of the boundary adjustment process, the term "adjusted urban area boundaries" refers to the FHWA boundary adjustment process in all areas of 5,000 population and above.

During the time between the release of the Census Bureau boundaries and the formal approval of the new adjusted boundaries, the previously developed and approved adjusted urban area boundaries remain in effect. For FHWA and State DOT planning purposes, if a State DOT chooses not to or is unable to adjust the urban area boundaries, the most recent unadjusted census boundaries will take effect. This could cause a roadway previously considered to be urban to now be considered rural, which may affect Federal aid funding eligibility.

[13] FHWA has traditionally used this term to describe Urban Areas with a population greater than or equal to 5,000 and less than 50,000

To avoid this situation, States are encouraged to work with their FHWA Division Office and their local planning partners to go through the process of developing the adjusted urban area boundaries within the recommended timeframe.

## 6.3 Relationship to Functional Classification

While the urban/rural designation is independent of the functional classification, it is important to recognize that the adjusted urban area boundary is a significant factor in developing the functional classification of a road in an urban/rural context.

FHWA policy has normalized[14] the concepts of urban boundaries and functional classification to improve consistency. The seven functional classifications each for urban and rural areas create 14 possible combinations of functional class and area type. As an example, a roadway classified as a Minor Arterial that happens to be in an urban area has a combined classification of Urban Minor Arterial. There is no change in the definitions of the functionally classified roads; nor does this in any way change the eligibility of rural and urban-classified roads for Federal programs and policies, or how highway statistics are reported.

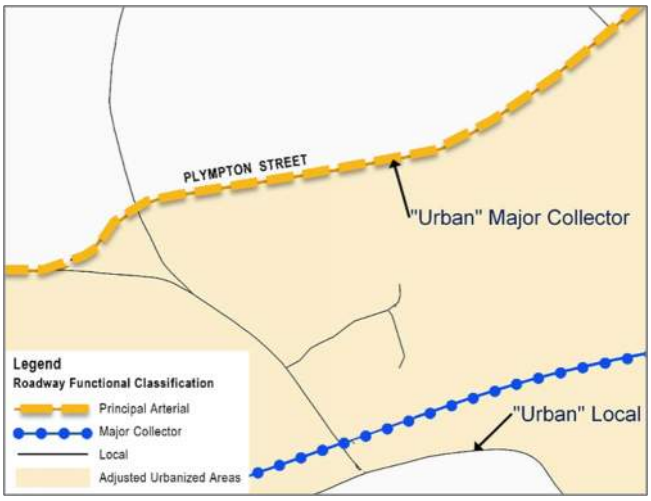
This policy provides an opportunity to clarify how functional classifications at the boundaries of urban/rural areas should be treated. The previous practice in some States of automatically changing the functional classification of a route that crosses into or out of an adjusted urban area boundary can be phased out and eliminated. Upgrading due to an actual change in function should be the operative criterion.

Special attention should be paid to locations at which roadways and boundaries are in close proximity. The adjusted urban area boundary should be designed to eliminate or minimize a roadway's snaking in and out of the boundary. In these cases, as the boundary is adjusted, it needs to be clearly defined that the road is either in or out. This adjustment serves to maintain consistent designation of these peripheral routes and avoids the situation of a roadway alternating between urban and rural designations. Special care should be taken when developing the boundary so that spatial consistency is maintained with the roadways and associated attributes.

Roads that define a boundary should be considered consistently urban or rural, and it is strongly recommended that these roadways be carefully evaluated before they are included in or out of the adjusted urban area boundary. For example, in **Figure 6-2**, Plympton Street (a Major Collector) defines the adjusted urban area boundary and is considered to be an Urban Major Collector, while Plymouth Street (a Local Road) is considered to be an Urban Local Road.

[14] Normalization here means simplifying the functional classification so that a roadway is classified with one meaning while urban/rural is a separate context in which the road is located.

*Figure 6-2: Example of Roadway Coinciding with Adjusted Urban Area*




*Source: CDM Smith 2012; Data provided by Massachusetts DOT*

## 6.4 Developing Adjusted Urban Area Boundaries

This section outlines a series of recommended technical and procedural steps to develop adjusted urban area boundaries. These tasks are typically conducted through a collaborative effort between State DOTs and local planning partners. The process begins with the release of the urban area boundaries by the Census Bureau and concludes with the approval of the appropriate FHWA Division Office. Overall, the process typically takes between six months and a year to complete from the time that the census boundaries are released.

As described previously, there is no requirement to adjust the census urban boundaries. States may adopt the census boundaries as is, or they may adjust them for transportation planning purposes. The only official requirement is that an adjusted boundary includes the original urban area boundary defined by the Census Bureau in its entirety. In other words, any adjustment must expand, not contract, the Census Bureau urban area boundary.

### 6.4.1 Adjusted Urban Area Boundaries – Technical Tasks

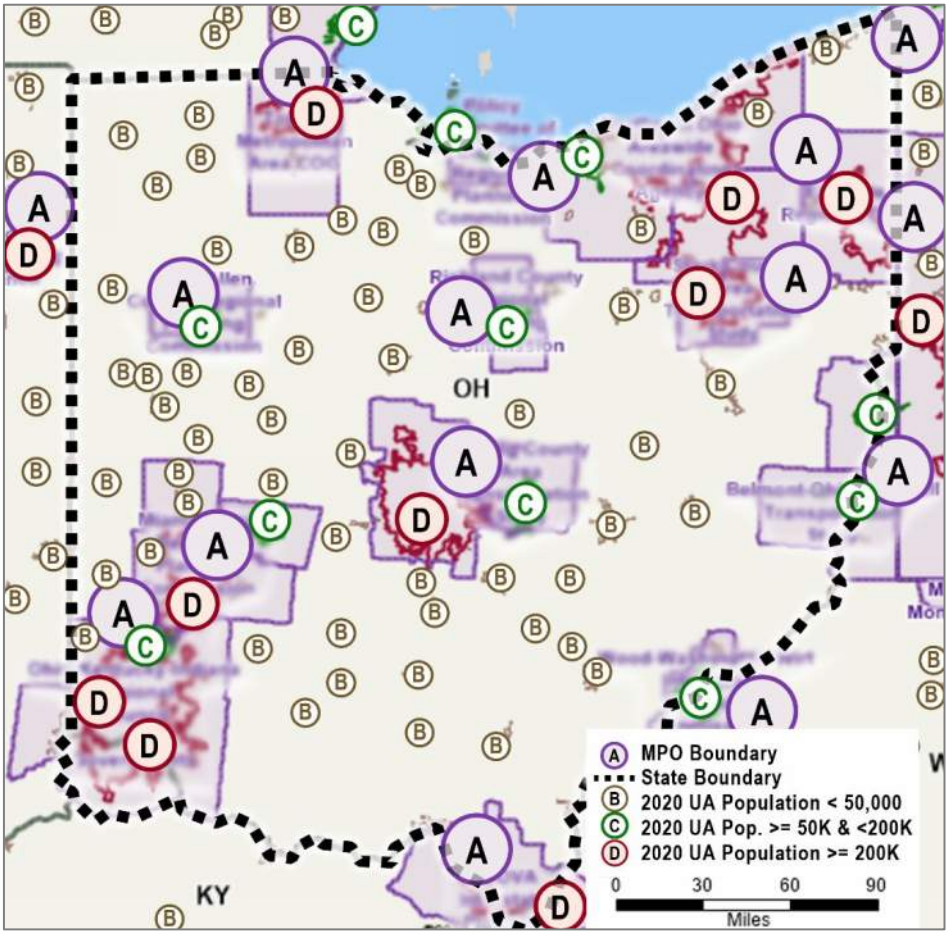
The first step in defining adjusted urban area boundaries is to obtain the census urban area geospatial boundary files from the Census Bureau. These files are available from FHWA's HEPGIS website https://hepgis.fhwa.dot.gov/fhwagis/ or from the Census Bureau in a variety of GIS-compatible formats, including Arc/Info export, Arc View shape file and Arc/Info format. Historical cartographic boundary files from previous censuses are available for download at:

https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.htmlThese urban area boundary files should be edited in GIS. Additional GIS layers should also be gathered from the same year as the decennial census (e.g., 2010) or of similar vintage (see **Figure 6-3**). Potentially useful GIS layers include:

- Land use, including areas of recent growth
- Roadway network
- Railroads
- Transit routes
- Ports (e.g., airports, seaports)
- Military installations

- Other significant traffic generators
- Hydrography
- Municipal boundaries (i.e., incorporated areas)
- Digital ortho-photography

*Figure 6-3: 2020 Census Urban Areas (Ohio and Vicinity)*



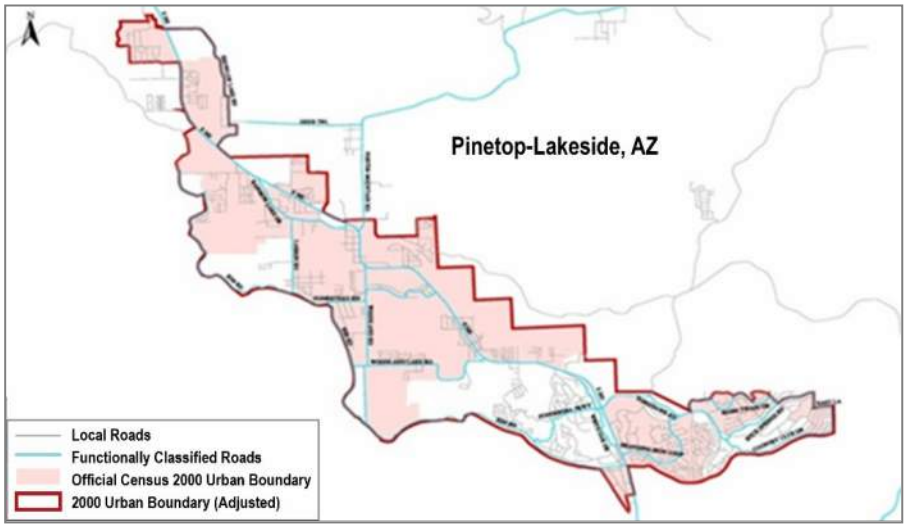

*Source: HEPGIS/ US Census Bureau*

## 6.4.2 Consideration Factors for Adjusting Urban Areas

When adjusting the urban areas, a variety of factors should be considered. The list below describes these factors and includes an example for each. All examples are courtesy of the Arizona or Massachusetts departments of transportation.

- The adjusted urban area boundary will encompass the entire urban area (of population 5,000 or greater) as designated by the Census Bureau. In **Figure 6-4**, no part of the original urban area was removed.

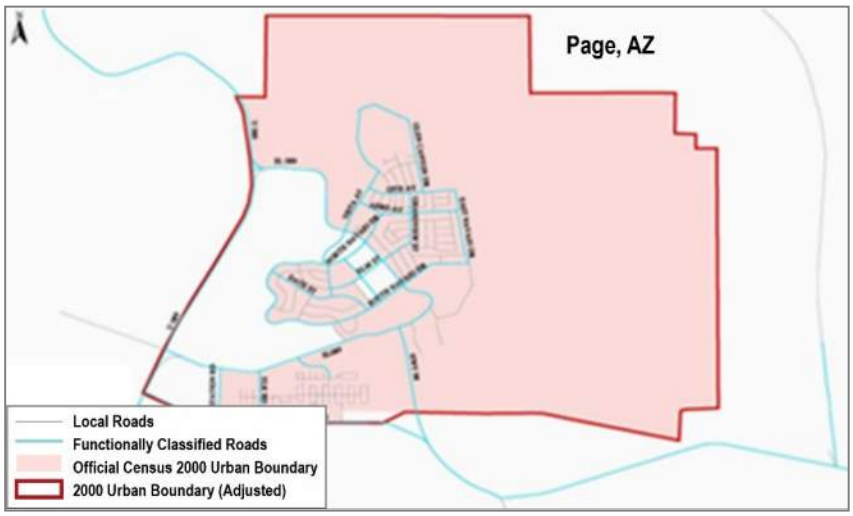
*Figure 6-4: Example Original Urban Area*




*Source: Arizona DOT; http://azdot.gov/mpd/gis/fclass/urban.asp*

- The adjusted urban area boundary will be one, single contiguous area. In **Figure 6-5**, the new boundary, like the original census boundary, is a single contiguous area without any holes or discontinuities, such that there is no rural area contained within the outer urban boundary.

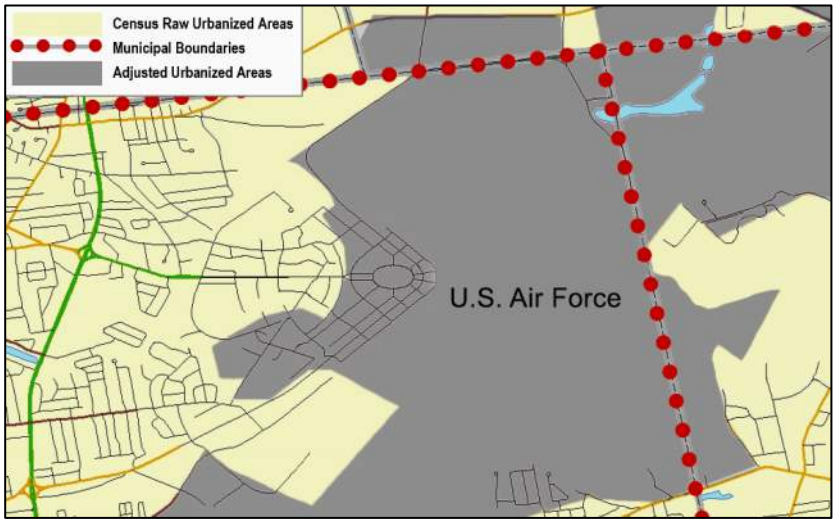
*Figure 6-5: Example Single Contiguous Area*




*Source: Arizona DOT; http://azdot.gov/mpd/gis/fclass/urban.asp*

- The adjusted urban area boundary often is designed to encompass areas outside of municipal boundaries that have urban characteristics with residential, commercial, industrial or national defense land uses that are consistent with or related to the development patterns with the boundary. The adjusted urban area boundary should include terminals and their access roads, if such terminals lie within a reasonable distance of the urban area (e.g., airports, seaports). In **Figure 6-6**, the urban area was expanded to cover the nearby Air Force base.

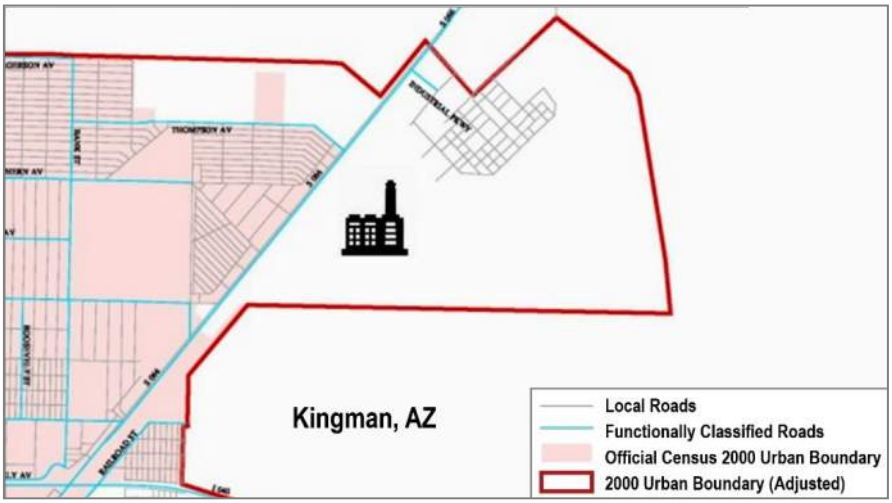
*Figure 6-6: Example Area Expanded to Cover Air Force Base*




*Source: Map created by CDM Smith, using data provided by Massachusetts DOT and US 2000 Census.*

- The adjusted urban area boundary is adjusted in many instances to encompass all large traffic generators that are within a reasonable distance from the urban area (e.g., fringe area public parks, large places of assembly, large industrial plants, etc.). In **Figure 6-7**, the urban area was expanded to include the industrial area east of the census urban area boundary.

*Figure 6-7: Example Area Expanded to Include Industrial Area*

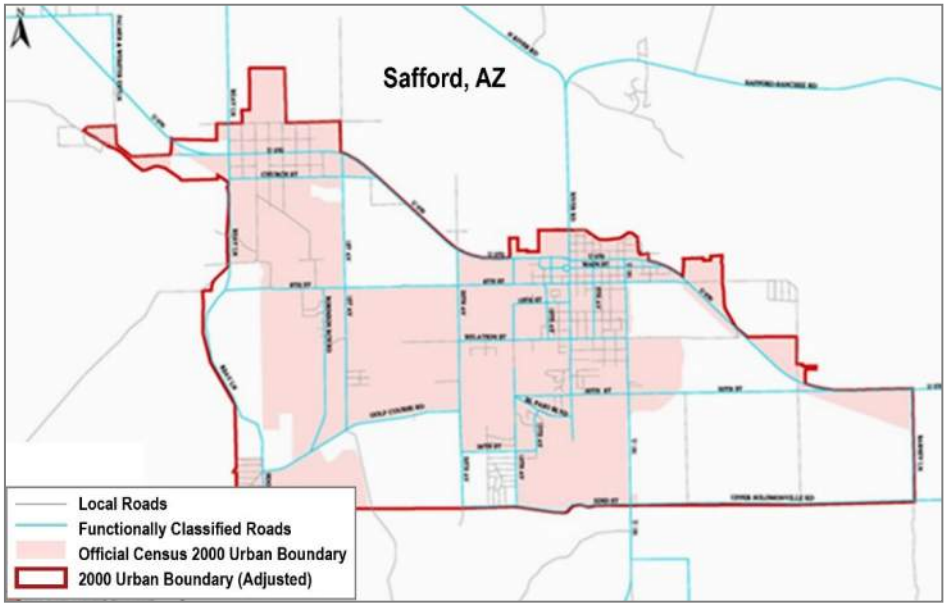



*Source: Arizona DOT; http://azdot.gov/mpd/gis/fclass/urban.asp with overlay graphic by CDM Smith to identify industrial plant.*

- The adjusted urban area boundary should consider transit service routes (e.g., bus route, passenger rail line) in the placement of a boundary location. However, their inclusion should not unduly distort the shape or composition of the original census-defined urban area boundary.
- The adjusted urban area boundary should be defined so that its physical location is easy to discern in the field from data shown on the map. Whenever possible, if the boundary is going to deviate from political jurisdictional boundaries, it should follow physical features (e.g., rivers, streams, irrigation canals, transmission lines, railroads, streets or highways).

In instances where physical features are lacking, the boundary should cross at roadway intersections which are readily identifiable in the field. In **Figure 6-8**, the boundary was adjusted to align with the major east-west roadway to the south.

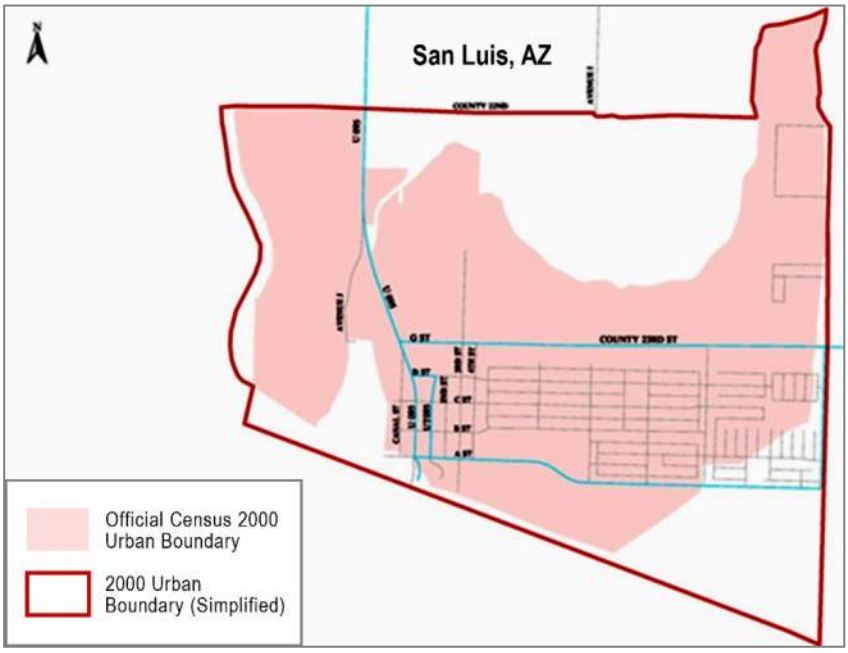
*Figure 6-8: Example Boundary Adjusted to Align with Major Roadway*




*Source: Source: Arizona DOT; http://azdot.gov/mpd/gis/fclass/urban.asp*

- After the adjusted urban area boundary has been defined using all the factors previously listed, remaining boundary irregularities should be minimized to avoid the confusion that irregular boundaries can create. In **Figure 6-9**, the boundary was adjusted to be considerably less complex than the original irregular census boundary.

*Figure 6-9: Example Boundary Adjusted for Simplicity*




*Source: Arizona DOT; http://azdot.gov/mpd/gis/fclass/urban.asp*

Additional recommendations regarding the adjustment of the urban area boundaries include:

- Adjusted urban area boundaries should be defined so that confusion or ambiguity is minimized. For example, a boundary should not be drawn in the middle of a divided highway. The divided highway should be either completely in or completely out of the urban area boundary.
- In instances where a roadway defines the boundary between two urban areas, the roadway should be clearly assigned to the urban area it primarily serves. If the roadway serves each urban area equally, a business rule should be developed that assigns the roadway appropriately.
- If access-controlled roadways are used to define the adjusted urban area boundary, all ramps and interchanges should be either included or excluded concerning the adjusted urban area boundary and interchanges should not be divided by the boundary.
- For coastal areas, if the intent of the adjusted urban area boundaries is to be reflective of the shoreline, then the generally accepted coastal boundaries most commonly used for geospatial processes, such as spatial analysis or map-making, should be used.

## 6.5 Adjusted Urban Area Boundaries – Procedural Tasks

If States and their local partners choose to adjust the urban area boundaries, then they must be reviewed, at a minimum, in conjunction with the census urban area boundary release.[15] FHWA recommends that this process be completed within 1 year of the release of the census urban area GIS datasets. FHWA considers a State's DOT, working with the appropriate local government entities, to be the authority during this process and relies upon State DOTs to take an active leadership role.

### 6.5.1 Risk Factors to Urban Area Adjustment Schedule

There are several risk factors that could potentially arise and impact the amount of time it takes to complete the adjustment process. Therefore, each State should develop a carefully planned approach for addressing these potential risk factors, which include:

- A large number of urban areas within a State
- Newly created urban areas
- Merging of previously separate urban areas
- Urban areas that cross State boundaries
- A large number of local planning partners with which to coordinate
- Inconsistency in the application of adjustment criteria across the State
- Inconsistent interim data submittal formats
- Lack of active engagement by local planning partners
- Lack of DOT resources to complete the process in a timely fashion

[15] Although there is no specific FHWA policy on how often adjustments to urban area boundaries can be made, states are encouraged to make such adjustments as infrequently as possible and only when deemed absolutely necessary.

## 6.5.2 Urban Area Adjustment Schedule

It is expected that the States will begin adjusting their Urban Area Boundaries as soon as possible after the Census Bureau releases its urban area boundaries, which typically occurs about 12 to 18 months following the decennial census.

**Figure 6-10** and the list that follows present a good practice level of procedural steps that should be completed within 12 months of the release of the Census Bureau's urban area boundary files.

*Figure 6-10: Good Practice Level of Procedural Steps for an Urban Boundary Update Process*

| Task | Mo. 1 | Mo. 2 | Mo. 3 | Mo. 4 | Mo. 5 | Mo. 6 | Mo. 7 | Mo. 8 | Mo. 9 | Mo. 10 | Mo. 11 | Mo. 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Mobilize the Adjusted Urban Area Boundary Update Process:** | | | | | | | | | | | | |
| 1a. Obtain Urban Area Boundaries from U.S. Census | X | | | | | | | | | | | |
| 1b. Establish AUAB Review Team | X | X | | | | | | | | | | |
| 1c. Generate data, maps, etc. for use by local planning partners | | X | X | | | | | | | | | |
| 1d. Contact local planning partners | | X | X | | | | | | | | | |
| **2. Work with Local Planning Partners in Adjusted Urban Area Boundary Review Process:** | | | | | | | | | | | | |
| 2a. Deliver data and documents to local planning partners | | | | X | | | | | | | | |
| 2b. Work with Local Planning Partners in Adjusted Urban Area Boundary Review Process | | | | X | X | X | X | X | X | | | |
| **3. Make Functional Classification Changes:** | | | | | | | | | | | | |
| 3a. Gather, review, and incorporate all proposed changes | | | | | | | | | | X | | |
| 3b. Submit draft Adjusted Urban Area Boundary information to FHWA | | | | | | | | | | | X | |
| 3c. Incorporate Adjusted Urban Area Boundary Changes into Enterprise Systems | | | | | | | | | | | | X |

*Source: CDM Smith*

1. **Mobilize the Urban Area Boundary Adjustment Process**

   a. **Acquire newly developed urban area boundaries from US Census.** Obtain the latest decennial census urban area boundaries from the Census Bureau.

   b. **Form a team to guide the urban area boundary update process.** Staff the team with FHWA Division personnel, along with State and regional transportation planners who have a vested interest in the final delineation of the boundaries. Individuals with experience in functional classification, Federal transportation funding, highway design, traffic operations and the metropolitan transportation planning process should have a role in this process. This review team should be responsible for reviewing draft adjusted urban area boundary submittals from local planning partners.

c. **Generate data, maps, etc. for use by local planning partners.** Incorporate urban area boundaries from the census into data and maps that that are relevant to local planning partners. These may include statewide, district, county and municipal scales.

d. **Contact local planning partners.** Contact the impacted local planning partners to explain the task at hand and request their participation. For Urbanized Areas contained and/or very proximate to metropolitan planning areas, the MPO should be a key partner. For Small Urban Areas, regional planning agencies, counties and/or local municipalities should be consulted. However, for many of these urban areas, additional effort may be required to properly engage these partners. In these instances, it is appropriate for State DOTs to make urban area adjustments in these areas. Finally, in some instances, regional transit service providers should also be consulted to understand their short-term routing plans.

2. **Work with Local Planning Partners in the Adjusted Urban Area Boundary Update Process**

a. **Deliver data and documents to local planning partners.** Share the original decennial census-based urban boundary maps and/or GIS data (including both Urbanized Areas and Small Urban Areas) with the local planning partners. In addition, to inform the partners and the process more completely, it helps if maps and/or GIS data representing both the previous unadjusted and adjusted urban area boundary are shared in a timely manner. This transmittal should include specific instructions in terms of data formats, spatial accuracy, update processes and expected completion dates, as well as this guidance document. In-person or video conference meetings are encouraged to enhance communication and mutual understanding. Creation of adjusted urban area boundaries should follow each State's GIS data editing and quality control procedures (e.g., issues of scale) and performed by qualified GIS users.

**b.** **Work with local planning partners.** As necessary, each State DOT will need to work with the local planning partners to ensure that the urban area adjustment process is meeting their expectations. Close collaboration with MPOs is extremely important, and regional workshops hosted by MPOs can be very valuable in ensuring there is a common understanding of the process and schedule. While the exact details surrounding information exchange may vary from state to state, the expectation is that local planning partners will review the US census urban area boundaries in the context of the existing adjusted urban area boundaries (based upon the previous census) and determine the extent to which the boundaries should be adjusted for transportation planning purposes. The local planning partners should submit a set of proposed adjustments to the current US Census urban area boundaries in their area to their State DOT.

3. **Make Adjusted Urban Area Boundary Changes**

   a. **Gather, review and incorporate proposed changes from local planning partners.** As local planning partners submit their recommendations for adjusted urban area boundaries, the State DOT must review the proposed adjustments to ensure that they are reasonable. At the very least, the DOT must ensure that no territory considered urban by the Census Bureau be left out of the adjusted urban area boundary. In addition, the State DOT should review all proposed adjusted urban area boundaries paying particular attention to locations where the adjusted urban area boundaries are co-located with another feature such as a roadway, a municipal boundary or a hydrographic feature. Some follow-up meetings may be necessary to resolve issues discovered by the DOT. The updated GIS adjusted urban area boundaries need to be incorporated into the master urban boundary layer and subjected to the DOT's GIS quality control checks with the metadata for the layer updated.

   b. **Submit draft adjusted urban area boundary information to FHWA Division Office.** Once the State DOT has successfully reviewed and concurred with all adjusted urban area boundaries, the State DOT should submit the draft final adjusted urban area boundaries to its FHWA Division Office for final approval. The specific format of data delivery should be worked out between the State DOT and their FHWA Division Office. Various geospatial formats will be acceptable, and as developed, FHWA systems such as HPMS or HEPGIS may be used. As a final resort, hard copy maps at a scale sufficient to identify the adjusted urban area boundaries can be submitted.

   c. **Incorporate adjusted urban area boundary changes into Enterprise Systems.** Once FHWA has approved the adjusted urban areas, the State DOT should incorporate the adjusted urban area boundary changes into the enterprise geospatial database systems that house the official record of the adjusted urban area boundaries. States are required to submit their adjusted urban area boundaries to FHWA when changes are made to the boundaries. In most cases, this submittal should only occur once after the State has completed its adjustment process.

**Table 6-3** presents key milestones for the overall development and submittal process (for example, using submitted data based upon the 2020 US Census data.

*Table 6-2: Key Milestones for Development and Submittal of Adjusted Urban Area Boundaries*

| Event | Months Following Decennial Census Data Release (approximate) |
|---|---|
| Census releases urban area boundaries | Month 24 |
| Begin adjusted urban area boundary update process | Month 24 |
| DOT works with planning partners to define adjusted urban area boundaries | Month 27-Month 33 |
| Provide draft final data and/or maps to FHWA Division Office for review and approval | Month 34 |
| DOT incorporates updates | Month 35 |
| DOT submits adjusted urban area boundaries via annual HPMS submittal | Month 36 |

Each State should submit only boundaries for the HPMS submittal that have been approved by their FHWA Division Office.

**Table 6-4** lists the attributes that are required within the FHWA geospatial database.

*Table 6-3: Geospatial Database Required Attributes*

| Field Name | Description |
|---|---|
| Year_Record | Year for which the data apply |
| Urban_Code | Census urban code |
| Urban_Name | Urban name |
| Census_Land_Area | Census land area (in square miles) |
| Shape | Polygon feature |

## 6.6 Adjusted Urban Area Boundaries – Data Transmittal Process

Each State DOT should coordinate with its local FHWA Division Office to discuss the data transmittal process. To the extent possible, all draft final boundaries should be submitted electronically in the form of GIS data and/or PDF maps. If GIS data are provided, appropriate metadata delineating the spatial accuracy, projection and definition/domain of all attributes should also be provided, as well as supporting documentation that briefly describes the process by which the boundaries were adjusted. In addition, each adjusted urban area boundary should be a single (multi-part, if necessary) polygon GIS feature. Feature names and codes should follow Federal Information Processing Standards (FIPS) conventions as well as any applicable State naming and coding standards.

# SECTION 7. GRAPHICS SOURCES

Akos Szoboszlay

Arizona DOT

CDM Smith

Creative Commons Attribution-Share Alike 2.0 generic license; Benjamin Clark

Department for Transport, United Kingdom

FHWA

Google Earth Pro

Lund University, Department of Technology and Society

Idaho DOT

Institute of Transportation Engineers

Idaho DOT

Massachusetts DOT

Minnesota DOT

Ohio DOT

Ohio Statewide Imagery Program

Oregon DOT

Smart Transportation Guidebook

Texas DOT

US Census (2000)

# Appendix B
# Detailed Functional Classification Criteria

# Introduction

Development of new and/or changes of existing functional classifications are based on an evaluation of the following criteria:

- Type and magnitude of travel generators.
- Route feasibility and directness of travel.
- Traffic characteristics and trip length.
- Spacing between types of functional classes.
- Continuity of various functional classes.
- Multiple service capability (accommodation of other modes of transportation).
- Relationships of functional classes to transportation plan(s).
- Miles and travel classification control values.
- Access Spacing.
- Integration of classifications of adjoining jurisdictions.

# Travel Generators

Any facility that creates or attracts vehicular traffic movements is a travel generator. The travel generators to be used in the classification process have been ranked and the parameters for each functional class have been established. Listed below are the travel generators and the parameters to be used in the functional classification process.

## Population Generators

A population generator is defined as any designated urbanized or urban area or incorporated city or town not within an urban area. The population of a place generally reflects its economic importance and capacity for generating and attracting travel; therefore, the greater the population, the higher the classification of the facility serving it. Generators of similar population and economic importance should be served by routes of the same functional classification. The functionally classified network required for connecting the appropriate population generators has been established as follows:

**TABLE 1**
Population Generator Levels

| Area Type | Functional Classification/Population | | | |
|---|---|---|---|---|
| | Principal Arterials | Minor Arterials | Collectors | |
| | | | Major | Minor |
| Rural | Over 30,000 | 10,000-30,000 | 1,500-10,000 | Under 1,500 |
| Urban* | Over 10,000 | 5,000-10,000 | Under 5,000 | |

* In the urbanized and urban areas, consideration is to be given for connecting only those population generators within the established federal urban area boundary

## Recreational/Cultural Generators

These traffic generators are used by residents and visitors for recreational and cultural purposes. Examples of recreational and cultural generators include parks, beaches, national and State forests, civic centers, stadiums, historical sites and monuments, outdoor theaters, State and County exhibition halls, museums, tourist attractions, and other facilities. For this type of travel generator, annual visitations are converted to population equivalencies.

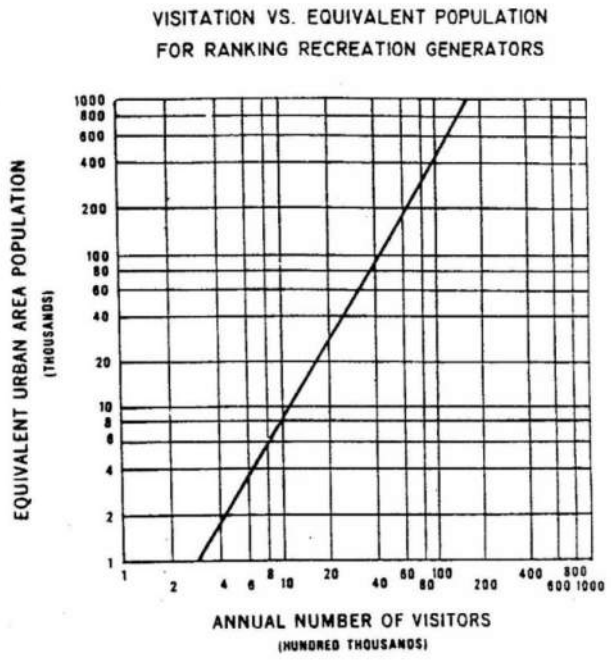



*Figure is from FHWA Functional Classification Guidelines: Concepts, Criteria and Procedures (Revised 1989) Section III*

If several recreational travel generators are located closely together or can be served by only one possible route, such as in a coastal peninsula or mountainous area, the visitations may be combined in the ranking process, and areas that are mixed recreational and residential (i.e. areas like Waikīkī and Kaʻanapali), the trip equivalencies are determined for the recreational areas, and grouped with the expected trips generated by the residential areas. Annual recreational generator visitations are to be reduced to a population equivalency by the following graph. Enter the chart at the bottom with the appropriate number of annual visitations and read on the left the population equivalency at the point where the vertical visitation line intersects the curve. Enter this population equivalency value into the appropriate area of the population rankings (see following Tables 8 and 9).

### Industrial Generators

Industrial generators are facilities having as their prime function the manufacture and/or processing of material and goods. With few exceptions, most industrial generators will be contained within or in close proximity to urban areas where transportation modes for the processed goods as well as an adequate labor force are available. The impact of the industrial generators must be considered in the urban areas where they exist, while rural classification evaluation may in most cases disregard this element. It is to be considered in the functional classification of rural facilities when a high level of activity is maintained over a reasonably long period of time, e.g., the hauling of agricultural products.

The following subcategories and employment figures are to be used in the evaluation of industrial generators.

- Large — a complex with an aggregate employment in excess of 3,000.
- Medium — a complex with an aggregate employment between 1,000 and 3,000.
- Small — a complex or facility with employment less than 1,000.

### Commercial Generators

Included in this category are the central business district, shopping centers, airports, port and railway warehousing, and terminals. Commercial generators are also storage or warehousing areas from which distribution is made to retail outlets and includes processing plants such as fruit packing and storage warehouses and creameries. An area to be considered within this category must be definable with concentrated retail goods and personal services outlets, distribution centers or processing plants, or a combination thereof. The following subcategories and parameters are to be used in the evaluation of commercial generators.

### Shopping Centers and Central Business Districts (CBD)

- Regional — an area with three or more department stores and 75 or more support retail and/or personal service outlets.
- Community an area with at least one department store and between 25 and 75 support retail and/or personal service outlets.
- Neighborhood — an area having at least one supermarket as the major outlet and other facilities limited to day-to-day needs and personal services.

### Ports and/or Railway Terminals

- Major — those facilities handling in excess of 4,000,000 tons annually.
- Minor — those facilities handling between 1,000,000 and 4,000,000 tons annually.

- Other — those facilities handling between 250,000 and 1,000,000 tons annually

### Transit

- Central or significant transit centers and/or stations.
- Transit Oriented Development (TOD)

### Airports

*The terms and parameters listed are extracts from the report of the State Aeronautics Commission for the establishment of the Statewide Airport Plan.*

- Primary — airports handling over 1,000,000 passenger boardings, or 250,000 aircraft operations (take offs or landings), or 50,000 tons of air cargo annually.
- Secondary — airports handling between 50,000 to 1,000,000 passenger boardings, or 100,000 to 250,000 aircraft operations, or 5,000 to 50,000 tons of air cargo annually.
- Feeder — airports handling less than 50,000 passenger boardings, or 100,000 aircraft operations or 5,000 tons of air cargo annually.

### Resorts Areas

Refer to the most recent edition of the ITE Trip Generation Manual to determine generation rates for resort hotels (current rate is 0.42 trips per unit).

### Governmental Generators

This group of travel generators includes military bases, colleges, universities, governmental administrative complexes, and others. For military establishments, a combination of military and civilian resident population and the employed civilian support personnel should be considered in estimating population.

For defining the population of civil (City, County, State and Federal) administrative complexes, consider those personnel whose main function is performed within the complex.

Educational/Institutional facilities are universities, colleges, vocational and technical institutes, schools, hospitals, penal institutions, etc. Population values are given as the appropriate aggregate of on-campus students, staff, patients, inmates and support personnel.

The size of governmental generators to be served by each functional class has been established as indicated in the following table:

**TABLE 2**
Guidelines for Government Generators

| Type of Travel Generator | Functional Classification/Population | | |
|---|---|---|---|
| | **Principal Arterial** | **Minor Arterial** | **Collector** |
| Military (urban) | Over 20,000 | 10,000-20,000 | Under 10,000 |
| Civil (urban) | Over 1,500 | 100-1,500 | Under 100 |
| Educational/Institutional (urban) | Over 5,000 | 1,000-5,000 | Under 1,000 |

## Feasibility of Route and Directness of Travel

The feasibility of route and directness of travel are considered where a choice of routes exist. The higher functional classification is assigned to the route having the larger volume of traffic, higher degree of development, and ability to accommodate further development along the existing alignment. Because most State roads on Maui, Kaua‘i, and Hawai‘i are the only route available, this criterion is most applicable on O‘ahu and the larger cities on the neighbor islands.

## Traffic Characteristics and Trip Length

The term traffic characteristic is used to more clearly associate with trip purpose rather than traffic composition measures like percentage of trucks, pickups, passenger vehicles, etc. Basic information for evaluating this element is data obtained in origin-destination studies. When such data are not available, the evaluation is to be made on the design and/or basis of the service the route is intended to provide.

In rural areas principal arterials should be used for longer trips in most, if not all, cases. The major portion of shorter county travel is served by minor arterials. These facilities that service longer trips will generally be longer and may entirely cross the county, providing service for relatively long trips. Major collectors provide for the shorter trips and serve as the major feeder system to the principal and minor arterials. Minor collectors provide for shorter intracounty travel not satisfied by higher classifications, on a facility with a higher design than that on the local access roads. The general intended length of service is as follows:

**TABLE 3**
Rural Functional Classification Guidelines – Type of Travel Service

| Functional Classification | Principal Arterial | Minor Arterial | Collector | |
|---|---|---|---|---|
| | | | **Major** | **Minor** |
| Length of travel | Greater than 8 miles | Medium-to short trips (2-6 miles depending on development density) | Short trips (1-4 miles depending on development density) | Short trips (1-4 miles depending on development density) |

In urbanized areas (over 50,000 population) consideration is to be given the trip length within the area and the connections required between travel generators in answer to travel desire as follows:

**TABLE 4**
Urban and Urbanized Areas Functional Classification Guidelines – Type of Travel Service

| Functional Classification | Principal Arterial | Minor Arterial | Collector |
|---|---|---|---|
| Type of travel | Through trips (rural to rural) and long distance internal trips between travel generators of like value Trips greater than 5 miles | Internal trips between travel generators of like value in relatively close proximity. Medium-to-short trips (2-4 miles depending on development density) | Intraurban and local trips to a higher classified facility. Short trips (1-4 miles depending on development density) |

## Spacing

In rural areas, the spacing of the principal and minor arterials is dictated by travel desire and generator demands. The collectors are spaced such that all identifiable and ranked travel generators are within a reasonable driving time of a higher classification road and all county seats not served by either a principal or minor arterial are served by a rural major collector.

In urban or urbanized areas, the spacing of various functional classifications is usually less in order to accommodate traffic flow in the central business district (CBD) and between the CBD and industrial, commercial, and residential areas. The values given below indicate the minimum distance between facilities of like classification. The prime consideration in assigning functional classification is the service to the travel generators with spacing as a qualifier toward the accomplishment of service.

**TABLE 5**
Urban and Urbanized Areas Guideline for Functional Classification/Spacing

| Location | Functional Classification/Spacing | | |
|---|---|---|---|
| | Principal Arterial | Minor Arterial | Collector |
| CBD | 1/2 mile | 1/8 – 1/2 mile | 1/4 mile to higher classified facility in all urban regions* |
| Urban Residential | 1 mile | 1/2 – 1 mile | |
| Suburban and urban fringe | 1 – 5 miles | 1 – 3 miles | |

*In some CBDs and in other areas of like development, the spacing of collectors may be less to incorporate the downtown circulation system including consideration of adjacent streets which may act as one-way couplets

## System Continuity

The principal and minor arterial functional classifications should be continuous, without any breaks, except that geographical or topographic conditions may otherwise dictate. In isolated cases, an arterial may have a beginning point at a specific travel generator (population or recreational area), but its ending termini must be at a junction with an equal or higher functionally classified facility. Continuity for urban collectors and rural major collectors is desirable and should be obtained if possible. System continuity is generally not necessary for the rural minor collectors.

## Multiple Service Capability

Multiple service capability is defined as the capability of a route to accommodate other modes of transportation (movement of people or goods) on the same facility *without a* significant impact on normal traffic flow. This classification element need not be considered in the evaluation of rural facilities, except when they are in close proximity to the urban areas.

In urban areas the factors which should be considered in the evaluation of existing facilities are: (1) the impact other rubber tired transportation modes (buses, trucks, etc.) have on the normal traffic flow; (2) the capability of the route for improvement to better accommodate other modes; (3) the ability of other transportation mode use to satisfy the demand or desire and accomplish the objectives by current routings; and (4) consideration of an alternate route which would or could be improved to better accommodate other transportation modes. The route or routes, which would best accommodate other transportation modes, should generally have a higher functional class assignment than the alternate routes with all other factors in the evaluation being equal.

## Relationship of Route to Transportation Plan

The relationship of routes to the regional or local transportation plan can be considered as an element in the classification evaluation process only where transportation plans has been developed. The Statewide Long-Range Land Transportation Plan is used in evaluating the State highway system. Where comprehensive long-range planning has been performed, the higher functional classifications should be assigned to those routes having the greatest importance in the plan. The proper evaluation and assignment of functional class to the existing facilities indicates the routes performing the higher functions or service under existing conditions. In effect, this produces a current transportation plan, which does not take into consideration future growth, land use, and zoning restrictions; however, the classified facilities will generally be the “backbone” of the future transportation plan.

## Classification Controls

In order to obtain balanced functionally classified systems, both rural and urban, two primary controls have been established: (1) miles by functional class; and (2) travel by functional class. In

establishing these controls, it is not the intent to restrict the miles and travel within an urban area, county, or planning region to the established parameters but rather to establish statewide controls when the mileage and travel is aggregated on a rural area and urbanized and urban area basis.

Geographic, topographic, and land use factors in the rural areas, coupled with size in the urban areas, will play a large part in the determination of functional classifications.

The following table contains guideline ranges of travel volume (VMT) and mileage of each of the seven functional classifications for urban and rural systems. Systems developed for each area using the criteria will usually fall within the percentage ranges shown.

**TABLE 7**
Guidelines on Extent of Urban Functional Systems

| System | Urban System Mileage/VMT Extent[1] (percentage ranges) | | Rural System Mileage/VMT Extent[1] (percentage ranges) | |
|---|---|---|---|---|
| | **Mileage** | **VMT** | **Mileage** | **VMT** |
| Principal arterial - Interstate | 1% - 3% | 17% - 31% | 1% - 2% | 20 – 38% |
| Principal arterial – Other Freeways & Expressways | 0% - 2% | 0% - 17% | 0% - 2% | 0% - 8% |
| Principal arterial - Other | 4% - 5% | 16% - 31% | 2% - 6% | 14% - 30% |
| Minor Arterial | 7% - 14% | 14% - 25% | 3% - 7% | 11 – 20% |
| Major Collector | 7% - 15% | 5% - 13% | 9% - 19% | 12% - 23% |
| Minor Collector | 7% - 15% | 5% - 13% | 4% - 15% | 2% - 9% |
| Local street system | 63% - 75% | 6% - 25% | 64% - 75% | 8% - 23% |

*Source: FHWA Highway Functional Classification Concepts, Criteria and Procedures, 2023 Edition, Tables 3-5 and 3-6*
*1 – Mileage and VMT Extent for All States. Ranges are derived from 2011 Highway Performance Monitoring System (HPMS) data.*

When the mileage of the functionally classified facilities exceeds these percentages based upon the total mileage within the urban area, county, or planning region, the reasoning and rationale for the excess is to be documented and supporting information furnished. In developing these data, the following instructions are to be adhered to:

1. Rural functionally classified mileage is to include the classified facilities in rural and unincorporated areas and the classified facilities within incorporated towns or cities of 0 to 4,999 population that are not included within a federal aid urbanized or urban area boundary.

2. Urban functionally classified mileage is to include all classified facilities within incorporated cities and towns and unincorporated areas lying within the established federal urbanized or urban boundaries.

## Access Spacing

Access management protects the functional integrity of the roadways system by ensuring that roadways maintain their planned movement versus access functions. Figure 1 below shows the balance between movement and increased access for a range of functional classifications. Higher order roadways, such as principal arterials have a higher degree of access control (i.e. longer driveway spacing) to preserve their movement function. Local streets have less restrictive access control because they are primarily intended to provide access to abutting properties. Access management strategies can include medians, shared driveways, relocating driveways onto side streets, or minimum spacing for driveways or roadways.

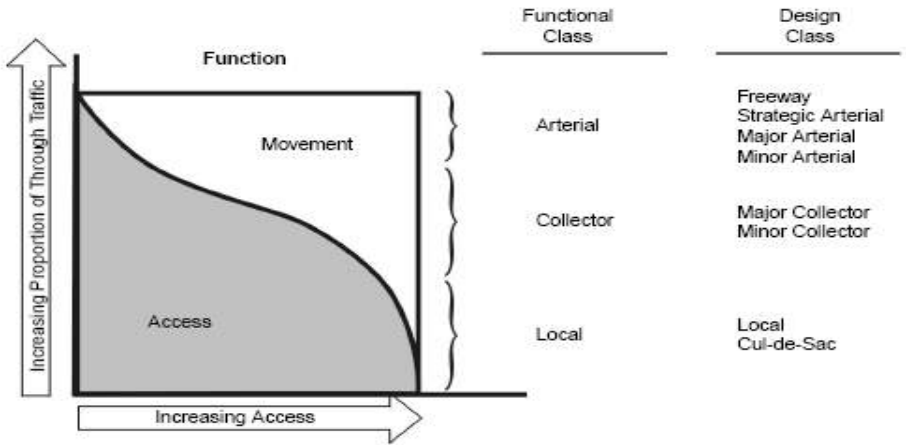



**FIGURE 1**
Hierarchy of Roadways in a Functionally Designed System
Source: TRB (2003).

Roadway functional classification provides a hierarchy of roads is useful in prioritizing facilities where mobility is more important than access. This functional classification hierarchy can be used as a tool to institute mobility goals on State roadways and conversely, looking at access spacing (intersection and driveway spacing) can help to determine a roadway's functional classification.

| Classification | Speed | Driveway Spacing | Signal Spacing |
|---|---|---|---|
| Principal arterial | > 45 mph | 625 ft* | ½ mile** |
| Principal Arterial | <= 45 mph | 440 ft* | ½ mile** |
| Minor arterial | > 45 mph | 625 ft* | ½ mile** |
| Minor arterial | <= 45 mph | 440 ft** | ½ mile** |
| Major collector | > 45 mph | 440 ft** | ¼ mile** |
| Major collector | <= 45 mph | 245 ft** | ¼ mile** |
| Minor collector | > 45 mph | 400 ft* | ¼ mile** |
| Minor collector | <= 45 mph | 245 ft* | ¼ mile** |

* AASHTO guidelines
** ITE guidelines

## System Integration

The final step in the classification procedure is to assemble all areas which have had the streets, roads, and highways individually classified (urban areas, counties, or regions) and to review the individual products as a whole. This final step determines the changes in functional class assignment of routes that cross the federal aid urban and/or county boundaries and consistency of functional classification with those of adjoining States and provinces. With the resolution of these changes by the involved agencies, a unified statewide classification of streets, roads, and highways with the required continuity is established.

**TABLE 8**
Rural Functional Classification Criteria

| | Functional Classification | | | |
|---|---|---|---|---|
| | | | Collector | |
| **Item** | **Principal Arterial** | **Minor Arterial** | **Major** | **Minor** |
| 1. Mileage (percentage ranges) | Interstate: 1% - 3%<br>Other Freeways & Expressways: 0% - 2%<br>Other: 2% - 6% | 3% - 7% | 9% - 19% | 4% - 15% |
| 2. Vehicle Miles Traveled (percentage ranges) | Interstate: 20% - 38%<br>Other Freeways & Expressways: 0% - 8%<br>Other: 14% - 30% | 11% - 20% | 12% - 23% | 2% - 9% |
| 3. Travel generators<br>a. Population (persons)<br>b. Recreational/cultural (population equivalencies)[a] | <br>> 30,000<br>> 30,000 | <br>10,000 – 30,000<br>10,000 – 30,000 | <br>1,500 – 10,000<br>1,500 – 10,000 | <br>< 1,500<br>< 1,500 |
| 4. Trip length | 8+ miles | 2-6 miles | 1-4 miles | |
| 5. System continuity [b] | Required | Required | Desirable | |
| 6. Directness of travel and feasibility of route | The route with the highest design standard, greatest cost benefit, and differential not greater than 10 percent in mileage is to be assigned the higher functional classification when alternate routes are available | | | |
| 7. Relation to Transportation Plan | To be considered | To be considered | To be considered | |
| 8. Access Spacing (Mobility vs. Land Access) | Greater emphasis on mobility than on land access. Little or no direct land access | Emphasis on mobility rather than on land access | Equal emphasis on mobility and land access. Direct land access predominantly to development concentrations | |

**TABLE 8**
Rural Functional Classification Criteria

[a] See page C-2 and C-3 for the process used to equate visitations to population
[b] Subject to specific conditions such as natural barriers

**TABLE 9**
Urban Functional Classification Criteria

| Item | Functional Classification | | |
|---|---|---|---|
| | **Principal Arterial** | **Minor Arterial** | **Collector** |
| 1. Mileage (percentage ranges) | Interstate: 1% - 3%<br>Other Freeways & Expressways: 0% - 2%<br>Other: 4% - 5% | 3% - 7% | Major & Minor: 7% - 15% |
| 2. Vehicle Miles Traveled (percentage ranges) | Interstate: 17% - 31%<br>Other Freeways & Expressways: 0% - 17%<br>Other: 16% - 31% | 11% - 20% | Major & Minor: 5% - 13% |

**TABLE 9**
Urban Functional Classification Criteria

| Item | Functional Classification | | |
|---|---|---|---|
| | **Principal Arterial** | **Minor Arterial** | **Collector** |
| 3. Travel generators | | | |
| a. Population (people) | > 10,000 | 5,000 – 10,000 | < 5,000 |
| b. Industrial | 3,000 employees | 1,000 – 3,000 employees | 1,000 employees |
| c. Commercial | | | |
| Shopping centers and CBDs (population equivalencies)[a] | Regional<br>> 4,000,000 | Community<br>1,000,000 – 4,000,000 | Neighborhood<br>250,000 – 1,000,000 |
| Ports and terminals (Annual tons) | Primary | Secondary | Feeder |
| Airports (population equivalencies)[a] | > 10,000 | 5,000 – 10,000 | < 5,000 |
| d. Recreational/cultural (population equivalencies)[a] | | | |
| e. Governmental | > 20,000 | 10,000 – 20,000 | < 10,000 |
| Military (population) | > 1,500 | 100 – 1,500 | < 100 |
| Civil (population) | > 5,000 | 1,000 – 5,000 | < 1,000 |
| Educational/institutional (population) | | | |
| 4. Feasibility of route and directness of travel | The route with the highest design standard, greatest cost benefit, and differential not greater than 10 percent in mileage is to be assigned the higher functional classification when alternate routes are available | | |
| 5. Traffic characteristics and trip length | b 8+ miles | c 2-6 miles | d 1-4 miles |
| 6. Spacing (miles) | 1/2 in CBD; 1 in urban residential; 1 – 5 in suburban and urban fringe | 1/8 – 1/2 in CBD; 1/2 – 1 in urban; 1 – 3 in suburban and urban fringe | Not less than 1/4 mile from higher classified arterials |
| 7. System Continuity [e] | Required | Required | Desirable |
| 8. Multiple Services | Surface type mass transit systems and intermodal connections | Limited transit services | Not applicable |

**TABLE 9**
Urban Functional Classification Criteria

| Item | Functional Classification | | |
|---|---|---|---|
| | **Principal Arterial** | **Minor Arterial** | **Collector** |
| 9. Relation to Transportation Plan | To be considered | To be considered | To be considered |
| 10. Access Spacing (Mobility vs. Land Access) | Greater emphasis on mobility than on land access. Little or no direct land access | Emphasis on mobility rather than on land access. Direct land access restricted to concentrations of commercial/industrial land uses | Equal emphasis on mobility and land access. Direct land access predominantly to development concentrations |

[a] Population or population equivalencies (see page C-2 and C-3)
[b] Through trips and long distance internal trips between travel generators of like value
[c] Intergenerator trips between generators of like value in relatively close proximity
[d] Intraurban and local trips to higher classified facilities
[e] Subject to specific conditions such as natural barriers

# Appendix C
# Functional Classification Revision Application

# FEDERAL FUNCTIONAL CLASSIFICATION REQUESTS

This form has been developed for use in all future requests for Federal Functional classification changes.

One form should be completed and submitted for each requested classification change. Functional classification changes require coordination with the Maui MPO and O'ahu MPO, if applicable.

Upon completion of the requested forms they should be submitted to the HDOT with a concurrence letter from the local government and any necessary maps or narrative to support the change.

| | |
|---|---|
| 1. COUNTY or CITY NAME | COUNTY or CITY NO.<br>*(refer to Local Agency Guidelines)* |
| 2. LOCAL AGENCY CONTACT PERSON | TELEPHONE NO. |
| 3. LOCAL NAME OF ROUTE | ROUTE NO.<br>*(if State Route use SR No.)* |

4. TERMINI OF ROUTE (*Description and milepost (if available)*)

FROM TO

LENGTH: Miles

5. TYPE OF AREA *(Federal Aid Highway Urban Area)*: ☐ URBAN ☐ RURAL

| | |
|---|---|
| 6. EXISTING FUNCTIONAL CLASSIFICATION | PROPOSED FEDERAL FUNCTIONAL CLASSIFICATION |

*(Urban Freeway/Expressway, Principal Arterial, Minor Arterial, Collector, Rural Major Collector, Rural Minor Collector, Local Access)*

7. SPACING *(Distance to parallel Federal functionally classified route)* Miles:

8. Average Trip Length

9. EXISTING OR PROPOSED ROAD CHARACTERISTICS

Roadway Width (incl. shoulders): _____ ft.

Surfacing Type *(mark appropriate space)* ☐ Gravel ☐ ACP ☐ BST ☐ Earth ☐ Other:

10. TRAFFIC GENERATORS *(Generators that route serves – est. VPD)*

INDUSTRIAL: Employees _____ VPD _____

AIRPORTS: Annual Flights _____ VPD _____

MILITARY INSTALLATIONS: Type _____

VPD _____

SHOPPING CENTER: No. Stores _____ VPD _____

OTHER: Type _____ VPD _____

SHIPPING POINTS: Annual Tons _____

RECREATIONAL: Annual Visitors _____
*(parks, lakes, beaches, etc.)*

AGRICULTURE AREAS: _____

COLLEGE OR UNIVERSITY: Enrollment _____

GOV. INSTITUTION: VPD _____

11. Are there zoning ordinances which can restrict growth or encourage growth of any of the above generators? Please indicate below.

12. TRAFFIC (at significant volume change locations)

Location _____

Existing Traffic _____ VPD

Future Traffic *(20 years)* _____ VPD

Location _____

Existing Traffic _____ VPD

Future Traffic *(20 years)* _____ VPD

13. Written description of route *(general characteristics including alignment, speed limit and how it relates to the surrounding area in terms of importance.)*

14. A brief description why the proposed change is requested and justification for the change.

15. Additional remarks to more fully explain the situation.

16. Attach a vicinity map showing the **proposed changes**, and **existing Federal Functional Classifications**.

# Appendix D
# Sample Functional Classification Application (with concurrency letters)

# Sample Consensus Letter

*Place on Agency Letterhead*

County of Maui
Department of Public Works
200 S. High Street, 4th Floor
Wailuku, Hawaii 96793

*DATE*

State of Hawaii, Department of Transportation
Planning Branch, Room 031
869 Punchbowl Street
Honolulu, HI 96813

**Re: Federal-Aid Urban Boundary and Functional Classification Update for the County of Maui**

Dear Mr. Tatsuguchi,

The County of Maui, Department of Public Works, appreciates the engagement with the statewide update of the Urban Boundary and Functional Classification update. The County of Maui has made recommendations and agrees with all of the proposed changes referenced in Federal-Aid Urban Boundary Policies and Procedures Report, dated November 2024 and the Federal-Aid Functional Classification Policies and Procedures Report, dated November 2024.

Sincerely,

Director of Public Works,
County of Maui

# Appendix E
# Functional Classification Revision Process

1. Applicant agency develops functional classification justification report (includes the functional classification revision application)

2. Applicant agency obtains concurrency of the counties, Oahu MPO, and Maui MPO as appropriate

3. Request submitted to HDOT Highways Planning
   1. HDOT Highways Planning reviews application for completeness and within functional classification methodology thresholds
   2. HDOT Highways Planning prepares findings and concurrence/non-concurrence

4. Request processed and sent to FHWA

5. FHWA approval/denial conditional approval received by HDOT

6. The applicant agency receives the approval/denial
   End of approval process

7. HDOT Highways Internal Update (if approved)
   1. HDOT Highways Planning to notify the appropriate offices and agencies of the approved change.
   2. Update GIS
   3. Update Single Line Diagrams
   4. Update the HPMS

# Appendix F
# Route Numbering Guidelines

# 1.0 Introduction

## 1.1 Purpose

The purpose of this memorandum is to provide guidelines for the numbering of State and County routes in the State of Hawai‘i. The Federal Highways Administration requires that all federally funded roads be designated a route number that follows the route numbering trend of the interstate system. The following are guidelines for the State of Hawai‘i and set of basic rules that can aid in determining route numbers for newly constructed or future roads.

## 1.2 Rules for Numbering Routes

In the 1950s and 1960s, most State and County routes were numbered or renumbered to what Hawai‘i’s system is today. The following provides guidelines based on the current numbering system. *Please note that there are many exceptions to these rules and the following statements intend to serve only as guidelines rather than absolute rules for route numbering.*

The following are general guidelines:

- -Route numbers should change when jurisdiction changes
- -Roadways should maintain one route number along the entire route
- -Roadways which are physically separate should be given different route numbers
- -A route number may remain constant along a roadway regardless of changes in urban characterization and functional classification

The interstate route numbering procedure was developed by officials of the American Association of State Highway and Transportation Officials (AASHTO). Major interstate routes are designated by one- or two- digit numbers (ex. H-1 and H-2). Connecting interstate routes and full or partial beltways around or within urban areas have a three- digit number (ex. H-201). There are currently four interstates, all on the island of O‘ahu, within the City and County of Honolulu: H-1, H-2, H-201 and H-3. Other numbered roads are State or County owned and are numbered based on their functional classification, rural/urban classification, and proximity to other routes. In general, a route number is not fixed and can be modified if necessary; for example, a road may change its route number if a bypass road becomes the more dominant route.

All State and County route numbers follow the same general set of guidelines and consist of 2, 3, or 4 digit numbers usually without prefixes or suffixes. The first number in the route number is determined by the island. This helps to prevent duplication of route numbers and aids in location of routes. The assigned numbers are:

- Hawai‘i -1, 2
- Maui -3

- Molokai/Lanai – 4
- Kaua‘i -5
- O‘ahu – 6, 7, 8, 9.

1) Double (2) digit numbers are typically Principal Arterials or primary highways. For example, a primary highway in Maui is Route 30.
2) Triple (3) digit route numbers are typically Minor Arterials and Major Collectors, secondary highways. The first two digits usually are related to the major highway which it is connected to. For example, a secondary highway connected to Route 11 might be Route 110 or 115.
3) Four (4) digit numbers identify the collector system and minor roads. Similar to secondary highway route numbers, the first two digits usually are related to the higher classified road it is connected to. The last two digits are typically determined by proximity to other routes. For example, a newly constructed collector parallel to a collector with route number 7315 would be numbered 7316 or 7320. The numbering should also take into account future functionally classifiable routes planned nearby.

However, as mentioned above, there are many exceptions to the guidelines mentioned above. Other areas of confusion that may occur is when roadways with the same name changes route numbering or when multiple roads are encompassed by a single route number; for example King Street is Route 7410 west of Kalihi Street and Route 7402 east of Kalihi Street.

Historically, numbering of new roads is dependent on the numbering of existing surrounding roads of similar functional classification. Creating a new system which is consistent throughout the State may be difficult without renumbering many of the roadways.

# Appendix G
# Justification of Changes to the Federal-Aid System

# Justification of Changes to the Federal-Aid System

| Route Number | Roadway Name and Extent | Existing | | | | Proposed | | | | NHS | Ownership | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Begin MP | End MP | Urban/ Rural | Functional Classification | Begin MP | End MP | Urban/ Rural | Proposed Functional Classification | | | |
| **County of Kaua'i** | | | | | | | | | | | | |
| 50 | Kaumualii Highway : Rice Street (Route 5020) > Cane Haul Road (dirt road) | 0.000 | 2.100 | Urban | Principal Arterial | 0.000 | 6.690 | Urban | Principal Arterial | Yes | State | Roadway in Federal-Aid Urban Boundary; combined into one segment from Rice Street to Maluhia Road |
| 50 | Kaumualii Highway : Cane Haul Road (dirt road) > Maluhia Road (Route 520) | 2.100 | 6.690 | Rural | Principal Arterial | | | | | | | |
| 50 | Kaumualii Highway : Maluhia Road (Route 520) > Omao bridge (#007000500302465) | 6.690 | 8.270 | Rural | Minor Arterial | 6.690 | 17.020 | Urban | Minor Arterial | | State | Roadway in Federal-Aid Urban Boundary; combined into one segment from Maluhia Road to Lele Road |
| 50 | Kaumualii Highway : Omao bridge (#007000500302465) > Lele Road | 8.270 | 17.020 | Urban | Minor Arterial | | | | | | | |
| 522 | Ala Kalanikaumaka : Koloa Road (Route 530) > Poipu Road (Route 520) | - | - | - | - | 3.320 | 5.010 | Urban & Rural | Minor Collector | | County | Upgrade to Minor Collector to provide a key north-south connection between two Major Collectors |
| 526 | Koloa Road/Wailani Road/Wailaau Road : Maluhia Road (Route 520) > Ala Kinoiki (Route 522) | 0.000 | 0.760 | Urban | Major Collector | 0.000 | 0.420 | Urban | Major Collector | | County | Revised segment to include Wailani Road and Wailaau Road, and end at Ala Kinoiki; will provide a key west-east connection between two Major Collectors |
| **527** | Waikomo Road : Koloa Road/Wailani Road > Poipu Road (Route 520) | - | - | - | - | 0.000 | 0.580 | Urban | Minor Collector | | County | Previously part of Route 526; separated into new segment and downgraded to Minor Collector |
| 540 | Halewili Road : Kaumualii Highway (east junction)(Route 50) > Kaumualii Highway (west junction) (Route 50) | 0.000 | 3.870 | Rural | Major Collector | 0.000 | 2.600 | Urban | Major Collector | | State | Portion of road now within the Federal-Aid Urban Boundary; changed these portions to Urban |
| | | | | | | 3.577 | 3.870 | Urban | | | | |
| 550 | Waimea Canyon Drive : Kaumualii Highway (Route 50) > Nele Road | 0.000 | 0.430 | Urban | Major Collector | 0.000 | 0.590 | Urban | Major Collector | | State | Revised to include more Urban area up to Waimea Ditch |
| 552 | Alae Road/Kokee Road : Kaumualii Highway (Route 50)> Waimea Canyon Drive | 0.000 | 7.550 | Rural | Major Collector | 0.000 | 0.395 | Urban | Major Collector | | County | Portion of road now within the Federal-Aid Urban Boundary; changed this portion to Urban |
| 562 | Kilauea Road : Mihi Road > Kilauea National Wildlife Refuge | 1.160 | 1.710 | Rural | Minor Collector | 1.160 | 1.710 | Rural | Major Collector | | County | Upgrade to Major Collector; AADT similar to other Major Collectors |
| **564** | Ala Namahana Parkway : Kilauea Road (Route 562) > Kuhio Highway (Route 56) | - | - | - | - | 0.000 | 0.560 | Rural | Major Collector | | County | Upgrade to Major Collector to provide access from Kuhio Highway to Kilauea Town |
| TBD | Lihue Mauka Road : Kuhio Highway > Kaumualii Highway | 0.000 | 5.560 | Urban | Major Collector | 3.090 | 5.190 | Rural | Major Collector | | County | Portions of road not within the Federal-Aid Urban Boundary; changed these portions to Rural |
| | | | | | | 5.340 | 5.370 | Rural | Major Collector | | County | |
| **County of Maui** | | | | | | | | | | | | |
| 30 | High Street/Honoapiilani Highway: Main Street (Route 32) > Kuihelani Highway (Route 380) | 0.000 | 4.880 | Urban | Principal Arterial | 0.000 | 7.456 | Urban | Principal Arterial | Yes | State | Revised to include more Urban Area past Maalaea Boat Harbor and Maalaea Bay Place |
| 30 | Honoapiilani Highway: Kuihelani Highway (Route 380) > proposed Lahaina Bypass (Route 3000) | 4.880 | 17.650 | Rural | | | | | | | | |
| 30 | Honoapiilani Highway/ Kahekili Highway : Plantation Estates Drive > end of state route (0.35 mi east of Papanahoa Stream Bridge (bridge #009000300304184) | 31.140 | 41.670 | Rural | Major Collector | 31.126 | 31.396 | Urban | Major Collector | | State | Portion of road now within the Federal-Aid Urban Boundary; changed this portion to Urban |

***BOLD*** *Route Numbers are newly assigned routes.*

## Justification of Changes to the Federal-Aid System

| Route Number | Roadway Name and Extent | Existing | | | | Proposed | | | | NHS | Ownership | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Begin MP | End MP | Urban/ Rural | Functional Classification | Begin MP | End MP | Urban/ Rural | Proposed Functional Classification | | | |
| 36 | Hana Highway : Haleakala Highway (Route 37) > Kaupakalua Road (Route 365) | 2.920 | 16.214 | Urban | Minor Arterial | 2.920 | 4.350 | Rural | Minor Arterial | | State | Portions of road not within the Federal-Aid Urban Boundary; changed these portions to Rural |
| | | | | | | 8.350 | 10.100 | | | | | |
| 374 | Kihei-Upcounty Maui Highway : Kihei Urban Boundary > Haleakala Highway (Route 37)/Haliimaile Road (Route 371) | 2.600 | 9.800 | Rural | Minor Arterial | 8.400 | 9.800 | Urban | Minor Arterial | | State | Portion of road within the Federal-Aid Urban Boundary; changed this portion to Urban |
| 378 | Haleakala Crater Road : Hakeakala Highway (Route 377) > Haleakala National Park boundary (at the cattle guard near the "End State Hwy Sign") | 0.000 | 10.099 | Rural | Major Collector | 0.000 | 0.100 | Urban | Major Collector | | State | Portion of road within the Federal-Aid Urban Boundary; changed this portion to Urban |
| **3045** | Kuhua Street: Keawe Street (Route 3075) > Lahainaluna Road (Route 3040) | 0.000 | 0.551 | | Local | 0.000 | 0.551 | Urban | Minor Collector | | County | Upgrade from Local to Urban Minor Collector for redundancy and connectivity in South Maui |
| 3115 | North-South Connector: Keonekai Road > Kilohana Road | 4.910 | 7.000 | | Local | 4.910 | 7.000 | Urban | Minor Collector | | County | Upgrade from Local to Urban Minor Collector for the North-South road extensions |
| 3180 | Waiale Road: Kuikahi Drive (Route 3210) > Honoapiilani Highway (Route 30) | 1.100 | 3.720 | | Local | 1.100 | 3.720 | Urban | Minor Collector | | County | Upgrade from Local to Urban Minor Collector due to transportation system improvements in Central Maui |
| 3185 | E. Waiko Road: Waiale Road > Kuihelani Highway | 0.420 | 1.304 | | Local | 0.420 | 1.304 | Urban | Major Collector | | County | Added segment to extend to Kuheilani Highway; existing segment ends at Waiale Road |
| 3200 | West Main Street/Iao Valley Road : High Street (Route 30) > Iao Valley State Park | 0.000 | 2.700 | Urban | Minor Collector | 2.200 | 2.700 | Rural | Minor Collector | | County | Portion of road not within the Federal-Aid Urban Boundary; changed this portion to Rural |
| 3210 | Kuikahi Drive : Waiale Road (Route 3180) > Maui Lani Parkway (Route 3220) | 1.160 | 1.766 | | Local | 1.160 | 1.766 | Urban | Minor Collector | | County | Upgrade from Local to Urban Minor Collector due to growth in Central Maui |
| **3220** | Maui Lani Parkway: Kuihelani Highway (Route 380) > Kaahumanu Avenue (Route 32) | - | - | | - | 0.000 | 2.770 | Urban | Major Collector | | County | Upgrade to Urban Major Collector due to growth in Central Maui |
| **3430** | Imi Kala Street: Lower Main Street > Kahekili Highway (Route 3405) | 0.000 | 0.850 | | Local | 0.000 | 0.850 | Urban | Minor Collector | | County | Upgrade from Local to Urban Minor Collector due to growth in Central Maui |
| 3700 | Piilani Highway : Kula Highway (Route 37) > Haleakala National Park boundary | 0.000 | 28.800 | Rural | Minor Collector | 0.000 | 0.020 | Urban | Minor Collector | | County | Portion of road within the Federal-Aid Urban Boundary; changed this portion to Urban |
| 3940 | Kamehameha Avenue : Papa Avenue (Route 3910) > Maui Lani Parkway (Route 3220) | 1.750 | 2.374 | | Local | 1.750 | 2.374 | Urban | Minor Collector | | County | Upgrade from Local to Urban Minor Collector due to growth in Central Maui |
| **City and County of Honolulu** | | | | | | | | | | | | |
| 83 | JP Leong Highway/Kamehameha Highway/Kahekili Highway/Likelike Highway/Kamehameha Highway : Kaukonahua Road (Route 930) > Pali Highway (Route 61) | 0.000 | 43.904 | Urban | Principal Arterial | 0 | 0.627 | Rural | Principal Arterial | Yes | State | Portions of road not within the Federal-Aid Urban Boundary; changed these portions to Rural |
| | | | | | | 13.098 | 15.139 | | | | | |
| | | | | | | 28.984 | 29.181 | | | | | |
| **94** | Hanua Street : Farrington Highway (Route 93) > Hanua Street | - | - | | - | 0.000 | 1.500 | Urban | Major Collector | | County | Added in 2023 and given a new Route Number |
| 95 | Kalaeloa Boulevard : Palailai Overpass > Malakole Street (Route 95) | 0.000 | 1.520 | | Private | 0.000 | 1.520 | Urban | Principal Arterial | | County | Road was privately owned and has been transferred to the City; adding road back on to the Federal-Aid system |

***BOLD*** *Route Numbers are newly assigned routes.*

## Justification of Changes to the Federal-Aid System

| Route Number | Roadway Name and Extent | Existing | | | | Proposed | | | | NHS | Ownership | Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Begin MP | End MP | Urban/ Rural | Functional Classification | Begin MP | End MP | Urban/ Rural | Proposed Functional Classification | | | |
| 99 | Kamehameha Highway/Kamananui Road/Wilikina Drive : JP Leong Highway (Route 83) > Kunia Road (Route 750) | 0.000 | 9.100 | Urban | Principal Arterial | 0.000 | 2.812 | Rural | Principal Arterial | | State | Portions of road not within the Federal-Aid Urban Boundary; changed these portions to Rural |
| | | | | | | 6.784 | 7.845 | Rural | Principal Arterial | | State | |
| 750 | Kunia Road : 1.06 miles past Anonui Street > 0.15 miles before divided highway | 2.000 | 7.040 | Rural | Minor Arterial | 2.000 | 7.040 | Urban | Principal Arterial | Yes | State | Portion of road within the Federal-Aid Urban Boundary; changed to this portion to Urban. Upgrade from Minor Arterial to Urban Principal Arterial due to growth and increased AADT in the area |
| 750 | Kunia Road : 0.15 miles before divided highway > Wilikina Drive (Route 99) | 7.040 | 8.046 | Urban | Minor Arterial | 7.040 | 8.046 | Urban | Principal Arterial | Yes | State | Upgrade from Minor Arterial to Urban Principal Arterial due to growth and increased AADT in the area |
| 7172 | Lumiaina Street/Managers Drive/Mokuola Street: Paiwa Street (Route 7170) > Farrington Highway (Route 7101) | 0.000 | 2.100 | | Local | 0.000 | 2.100 | Urban | Minor Collector | | County | Upgraded from Local to Urban Minor Collector in 2022 |
| **7190** | Anonui Street: Kunia Road (Route 750) > Anoiki Street | 0.000 | 1.700 | | Local | 0.000 | 1.700 | Urban | Minor Collector | | County | Requested to add to the Federal-Aid system due to growth and increase in traffic |
| 8755 | Mailiilii Road/Paakea Road : Hakimo Road (Route 8741) > Lualualei Naval Road | 2.700 | 3.028 | | Local | 2.700 | 3.028 | Urban | Minor Collector | | County | Added segment to extend to Lualualei Naval Road; existing segment ends at Hakimo Road |
| 8918 | Wakea Street : Kamokila Boulevard (Route 8915) > Farrington Highway (Route 93) | 0.000 | 0.600 | Urban | Minor Collector | 0.477 | 0.593 | Urban | Minor Arterial | | County | New section of Wakea Street constructed, upgrade this section from Minor Collector to Urban Minor Arterial |
| H-3 | H-3 : H-1 > Kaneohe Marine Corps Base Hawaii main gate | 0.000 | 15.320 | Urban | Principal Arterial - Interstate | 1.069 | 6.772 | Rural | Principal Arterial - Interstate | | State | Portion of road not within the Federal-Aid Urban Boundary; changed this portion to Rural |
| **County of Hawai'i** | | | | | | | | | | | | |
| 11 | Volcano Road/Mamalahoa Highway : Old Keaau-Pahoa Road (Route 139) > 0.01 miles past Capt. Cook Village Road | 7.300 | 109.220 | Rural | Minor Arterial | 7.300 | 9.121 | Urban | Minor Arterial | | State | Portion of road within the Federal-Aid Urban Boundary; changed this portion to Urban |
| 11 | Mamalahoa Highway : 0.01 miles past Capt. Cook Village Road (end of state highway) > Palani Road (Route 190) | 109.220 | 113.690 | Urban | Principal Arterial | 109.220 | 110.000 | Rural | Principal Arterial | | County | Portion of road not within the Federal-Aid Urban Boundary; changed this portion to Rural |
| 130 | Pahoa-Kalapana Road/Kaimu-Chain of Craters Road : Pahoa-Kapoho Road > end of route (0.83 miles past Royal Palm Drive) | 12.140 | 21.639 | Rural | Major Collector | 12.140 | 12.440 | Urban | Major Collector | | State | Portion of road within the Federal-Aid Urban Boundary; changed this portion to Urban |
| 132 | Pahoa-Kapoho Road : Pahoa-Keeau Road (Route 130) > Kaimu-Kapoho Road | 0.000 | 7.730 | Rural | Major Collector | 0.000 | 0.930 | Urban | Major Collector | | County | Portion of road within the Federal-Aid Urban Boundary; changed this portion to Urban |
| 191 | Waikoloa Road : Mamalahoa Highway (Route 190) > Queen Kaahumanu Highway (Route 19) | 0.000 | 11.930 | Urban | Minor Arterial | 0.000 | 6.050 | Rural | Minor Arterial | | County | Portion of road not within the Federal-Aid Urban Boundary; changed this portion to Rural |
| 200 | Saddle Road : Hilo Urban Boundary (0.16 miles before Ua Nahele St) > Queen Kaahumanu Highway (Route 19) | 0.000 | 54.000 | Rural | Minor Arterial | 0.000 | 2.170 | Urban | Minor Arterial | | State | Portions of road within the Federal-Aid Urban Boundary; changed these portions to Urban |
| | | | | | | 50.920 | 54.000 | | | | | |
| 210 | Mauna Kea Access Road : Saddle Road (Route 200) > Obseratory | 0.000 | 14.860 | | Local | 0.000 | 14.860 | Rural | Minor Collector | | State | Road jurisdiction transitioned to the State; upgrade from Local to Minor Collector |

***BOLD*** *Route Numbers are newly assigned routes.*

# Appendix H
# Updated System Analysis

The updated statewide functional classification is in line with FHWA's guidance regarding functional system characteristics. FHWA recognizes that Hawaii, as an island state, may have roads on small islands or in other areas that are isolated from the rest of the state. Therefore, the state is likely to have a different breakdown of lane miles for arterials, collectors, and local roadways than would be typically expected. Overall, the amount of change in arterials and collectors from the previous system is minor. The 2024 update increased the percentage of miles on arterials by 0.2 percent and increased the percentage of miles on collectors by 2.7 percent. There was no discernible change to the Federal-Aid Highway system. Overall, the growth of the federal aid highway system is 1.3%, which primarily accounts for an increase in collectors in urban locations where housing and jobs have increased.

| | FHWA Guidelines | Hawai'i Statewide System |
|---|---|---|
| Urban Arterials and Collectors | 25 – 59% | 24% |
| Rural Arterials and Collectors | 18 – 47% | 15% |
| Urban Principal Arterials | 4 – 5% | 8% |
| Rural Principal Arterials | 2 – 6% | 2% |

Typical statewide breakdown of mileage from FHWA[4] for percent miles for functional classification systems is described in the table on the right, compared with the percentage of miles in the updated Hawaii statewide system.

FHWA recommends that the combined percentage of miles on urban arterials and collectors combined is a maximum of 25 to 59 percent of statewide route mileage. The Hawaii Functional Classification update is 24 percent. Hawaii's unique topography allows for an exception as many of the statewide roads are in a coastal or mountainous terrain areas and don't meet the arterial design criteria.

FHWA recommends that rural principal arterials comprise a maximum of 4 percent of statewide route mileage – the Hawaii Functional Classification Update has 2 percent rural principal arterials. For urban principal arterials, FHWA recommends no more than 4 to 5 percent of statewide routes mileage; the update includes 8 percent urban principal arterials.

[4] http://www.fhwa.dot.gov/policy/ohpi/hpms/fchguidance.cfm

The detailed changes from this update to the centerline miles of roadways by specific classification are as follows:

| STATEWIDE CLASSIFICATION (all numbers in centerline miles) | Existing Miles | New Miles | Total Miles | Percent Change |
|---|---|---|---|---|
| Urban Interstate | 54.900 | -5.703 | 49.197 | -10.39% |
| Rural Interstate | 0.000 | 5.703 | 5.703 | - |
| Urban Other Freeway/Expressway | 33.634 | 0.000 | 33.634 | 0.00% |
| Urban Other Principal Arterial | 279.888 | 11.807 | 291.695 | 4.22% |
| Rural Other Principal Arterial | 70.850 | -4.162 | 66.688 | -5.87% |
| Urban Minor Arterial | 208.296 | 0.652 | 208.948 | 0.31% |
| Rural Minor Arterial | 264.004 | -6.352 | 257.652 | -2.41% |
| Urban Major Collector | 278.557 | 7.016 | 285.573 | 2.52% |
| Urban Minor Collector | 192.674 | 7.887 | 200.561 | 4.09% |
| Rural Major Collector | 225.660 | 4.322 | 229.982 | 1.92% |
| Rural Minor Collector | 87.840 | 15.422 | 103.262 | 17.56% |
| STATEWIDE SUMMARY | | | | |
| Arterials | 911.572 | 1.946 | 913.518 | 0.21% |
| Collectors (Rural Minor excluded) | 696.891 | 19.225 | 716.116 | 2.76% |
| **Federal Aid** | **1608.463** | **21.171** | **1629.634** | **1.32%** |

# Appendix I
# Federal-Aid System

# County of Kauai Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 50 | Kaumualii Highway : Rice Street (Route 5020) > Maluhia Road (Route 520) | State | 0.000 | 6.690 | 3 | Yes | Urban | | | 6.690 | | | |
| 50 | Kaumualii Highway : Maluhia Road (Route 520) > Lele Road | State | 6.690 | 17.020 | 4 | | Urban | | | | 10.330 | | |
| 50 | Kaumualii Highway : Maluhia Road (Route 520) > Omao bridge (#007000500302465) | State | 17.020 | 22.510 | 4 | | Rural | | | | 5.490 | | |
| 50 | Kaumualii Highway : Waimea River bridge (#007000500301039) > Bridge #4 (#007000500300570) | State | 22.470 | 27.210 | 4 | | Urban | | | | 4.740 | | |
| 50 | Kaumualii Highway/Lio Road/Kao Road : Bridge #4 (#007000500300570) > North entrance gate of the Pacific Missile Range Facility | State | 27.210 | 32.930 | 4 | | Rural | | | | 5.720 | | |
| 51 | Waapa Road/Rice Street/Kapule Highway : Nawiliwili Road (Route 58) > Kuhio Highway (Route 56) | State | 0.000 | 3.440 | 3 | Yes | Urban | | | 3.440 | | | |
| 56 | Kuhio Highway : Rice Street/Kaumualii Hwy (Route 50) > 0.11 miles past Mailihuna Road (Route 5870) | State | 0.000 | 9.950 | 3 | Yes | Urban | | | 9.950 | | | |
| 56 | Kuhio Highway : 0.11 miles past Mailihuna Road (Route 5870) > Aliomanu Road (North connection) | State | 9.950 | 15.110 | 4 | | Urban | | | | 5.160 | | |
| 56 | Kuhio Highway : Aliomanu Road > Route markers 56 and 560 (same as begin Route 560, Kuhio Hwy) | State | 15.110 | 28.110 | 4 | | Rural | | | | 13.000 | | |
| 58 | Nawiliwili Road : Waapa Road (Route 51) > Kaumualii Highway (Route 50) | State | 0.000 | 2.060 | 3 | Yes | Urban | | | 2.060 | | | |
| 520 | Maluhia Road : Kaumualii Highway (Route 50) > 0.26 miles north of Wailaau Road | County | 0.000 | 2.500 | 4 | | Rural | | | | 2.500 | | |
| 520 | Maluhia Road/Koloa Road : 0.26 miles north of Wailaau Road > Poipu Road (Route 520) | County | 2.500 | 3.350 | 4 | | Urban | | | | 0.850 | | |
| 520 | Poipu Road : Koloa Road (Route 530) > Ala Kinoiki (Route 522) and Pee Road | County | 3.350 | 6.350 | 5 | | Urban | | | | | 3.000 | |
| 521 | Omao Road : Kaumualii Highway (Route 50) > Koloa Road (Route 530) | County | 0.000 | 2.120 | 6 | | Urban | | | | | | 2.120 |
| 522 | Ala Kinoiki : Poipu Road (Route 520) > Koloa Road (Route 530) | County | 0.000 | 3.320 | 5 | | Urban | | | | | 3.320 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Kauai Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 522 | Ala Kalanikaumaka : Koloa Road (Route 530) > 0.2 miles south of Koloa Road (by Smith Ditch crossing) | County | 3.320 | 3.520 | 6 | | Rural | | | | | | 0.200 |
| 522 | Ala Kalanikaumaka : 0.2 miles south of Koloa Road (by Smith Ditch crossing) > 0.58 miles south of Koloa Road | County | 3.520 | 3.900 | 6 | | Urban | | | | | | 0.380 |
| 522 | Ala Kalanikaumaka : 0.58 miles south of Koloa Road > 0.03 miles north of Lopoka Paipa Boulevard | County | 3.900 | 4.150 | 6 | | Rural | | | | | | 0.250 |
| 522 | Ala Kalanikaumaka : 0.03 miles north of Lopoka Paipa Boulevard > Poipu Road (Route 520) | County | 4.150 | 5.010 | 6 | | Urban | | | | | | 0.860 |
| 523 | Lawai Road : Poipu Road (Route 520) > End of Urban Boundary 0.13 miles east of Alania Road | County | 0.000 | 1.569 | 5 | | Urban | | | | | 1.569 | |
| 523 | Lawai Road : Spouting Horn Beach Park parking lot exit > Gate at the end of route | County | 1.569 | 2.350 | 5 | | Rural | | | | | 0.781 | |
| 525 | Weliweli Road : Koloa Road (Route 526) > Ala Kinoiki (Route 522) | County | 0.000 | 0.660 | 6 | | Urban | | | | | | 0.660 |
| 526 | Koloa Road/Wailani Road/Wailaau Road : Maluhia Road (Route 520) > Ala Kinoiki (Route 522) | County | 0.000 | 0.420 | 5 | | Urban | | | | | 0.420 | |
| **527** | Waikomo Road : Koloa Road/Wailani Road > Poipu Road (Route 520) | County | 0.000 | 0.580 | 6 | | Urban | | | | | | 0.580 |
| 530 | Koloa Road : Kaumualii Highway (Route 50) > Maluhia Road (Route 520) | County | 0.000 | 3.500 | 5 | | Urban | | | | | 3.500 | |
| 531 | Papalina Road : Kaumualii Highway (Route 50) > Waha Road (Route 532) | County | 0.000 | 1.210 | 5 | | Urban | | | | | 1.210 | |
| 532 | Waha Road : Niho Road > Koloa Road (Route 530) | County | 0.000 | 2.410 | 6 | | Urban | | | | | | 2.410 |
| 534 | Puuwai Road : Kaumualii Highway (Route 50) > Kikala Road | County | 0.000 | 1.450 | 6 | | Urban | | | | | | 1.450 |
| 536 | Piko Road : Kaumualii Highway (Route 50) > Koloa Road (Route 530) | County | 0.000 | 0.400 | 6 | | Urban | | | | | | 0.400 |
| 540 | Halewili Road : Kaumualii Highway (east junction)(Route 50) > McBride New Mill Rd | State | 0.000 | 0.260 | 5 | | Urban | | | | | 0.260 | |
| 540 | Halewili Road : McBride New Mill Rd > 0.3 miles east of Iluna Street | State | 0.260 | 3.577 | 5 | | Rural | | | | | 3.317 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Kauai Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 540 | Halewili Road : Kaumualii Highway (east junction)(Route 50) > Kaumualii Highway (west junction) (Route 50) | State | 3.577 | 3.870 | 5 | | Urban | | | | | 0.293 | |
| 541 | Waimea Canyon Drive : Kaumualii Highway (Route 50) > Near Nele Road | State | 0.000 | 0.370 | 5 | | Urban | | | | | 0.370 | |
| 543 | Moi Road : Kaumualii Highway (Route 50) > Gate at the end of road | County | 0.000 | 1.410 | 6 | | Urban | | | | | | 1.410 |
| 545 | Hanapepe Road : Kaumualii Highway (west junction) (Route 50) > Kaumualii Highway (east junction) (Route 50) | County | 0.000 | 0.980 | 6 | | Urban | | | | | | 0.980 |
| 550 | Waimea Canyon Drive : Kaumualii Highway (Route 50) > Near Waimea Ditch | State | 0.000 | 0.590 | 5 | | Urban | | | | | 0.590 | |
| 550 | Waimea Canyon Drive/Kokee Road : Near Waimea Ditch > Kokee State Park | State | 0.590 | 14.100 | 5 | | Rural | | | | | 13.510 | |
| 551 | Kekaha Road/Akialoa Road : Kaumualii Highway (east junction) (Route 50) > Kaumualii Highway (west junction) (Route 50) | County | 0.000 | 2.520 | 6 | | Urban | | | | | | 2.520 |
| 552 | Alae Road/Kokee Road : Kaumualii Highway (Route 50)> 0.1 miles before Mana Road intersection | County | 0.000 | 0.395 | 5 | | Urban | | | | | 0.395 | |
| 552 | Alae Road/Kokee Road : 0.1 miles before Mana Road intersection > Waimea Canyon Drive (Route 550) | County | 0.395 | 7.550 | 5 | | Rural | | | | | 7.155 | |
| 553 | Menehune Road : Kaumualii Highway (Route 50) > end of paved road | County | 0.000 | 2.100 | 6 | | Urban | | | | | | 2.100 |
| 554 | Waimea Road : Kaumualii Highway (Route 50) > Ala Wai Road | County | 0.000 | 0.200 | 6 | | Urban | | | | | | 0.200 |
| 560 | Kuhio Highway : end of Route 56 > Aku Road (Route 563) | State | 0.000 | 2.650 | 4 | | Rural | | | | 2.650 | | |
| 560 | Kuhio Highway : Aku Road (Route 563) > end of paved | State | 2.650 | 10.010 | 5 | | Rural | | | | | 7.360 | |
| 562 | Kolo Road/Kilauea Road : Kuhio Highway (Route 56) > Mihi Road | County | 0.000 | 1.160 | 5 | | Rural | | | | | 1.160 | |
| 562 | Kilauea Road : Mihi Road > Kilauea National Wildlife Refuge | County | 1.160 | 1.710 | 5 | | Rural | | | | | 0.550 | |
| 563 | Aku Road : Kuhio Highway (Route 560) > Weke Road (Route 565) | County | 0.000 | 0.250 | 5 | | Rural | | | | | 0.250 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Kauai Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| **564** | Ala Namahana Parkway : Kilauea Road (Route 562) > Kuhio Highway (Route 56) | County | 0.000 | 0.560 | 5 | | Rural | | | | | 0.560 | |
| 565 | Weke Road : Anae Road > Hanalei Beach Park | County | 0.000 | 1.090 | 6 | | Rural | | | | | | 1.090 |
| 566 | Anahola Road/Manai Road/Kukuihale Road : Kuhio Hwy (N junction) (Route 56) > Kuhio Hwy (S junction) (Route 56) | County | 0.000 | 1.680 | 5 | | Urban | | | | | 1.680 | |
| 570 | Ahukini Road : Kuhio Highway (Route 56) > 0.06 miles east of Kapule Highway (Route 51) | State | 0.000 | 1.120 | 3 | Yes | Urban | | | 1.120 | | | |
| 580 | Kuamoo Road : Kuhio Highway (Route 56) > Kamalu Road (Route 581) | State | 0.000 | 2.770 | 4 | | Urban | | | | 2.770 | | |
| 580 | Kuamoo Road : Kamalu Road (Route 581) > UH AGR. Station | State | 2.770 | 4.810 | 5 | | Urban | | | | | 2.040 | |
| 580 | Kuamoo Road : UH AGR. Station > Forest Reserve Sign (end of urban boundary) | State | 4.810 | 6.130 | 6 | | Urban | | | | | | 1.320 |
| 580 | Kuamoo Road : Forest Reserve Sign (end of urban boundary) > Beginning of the ford crossing (end of 2 lane section) | State | 6.130 | 6.680 | 6 | | Rural | | | | | | 0.550 |
| 581 | Kukui Street/Olohena Road : Kuhio Highway (Route 56) > Kamalu Road (Route 581) | County | 0.000 | 3.420 | 5 | | Urban | | | | | 3.420 | |
| 581 | Kamalu Road : Olohena Road (Route 581)> Kuamoo Road (Route 580) | County | 3.420 | 5.060 | 6 | | Urban | | | | | | 1.640 |
| 583 | Maalo Road : Kuhio Highway (Route 56) > Cane Haul Road/Quarry Road (end of urban boundary) | State | 0.000 | 0.920 | 6 | | Urban | | | | | | 0.920 |
| 5010 | Puhi Road : Kaumualii Highway (Route 50) > Kaneka Street | County | 0.000 | 0.356 | 5 | | Urban | | | | | 0.356 | |
| 5010 | Puhi Road : Kaneka Street > End of Urban Boundary 0.07 miles south of Haleukana Street | County | 0.356 | 0.856 | 6 | | Urban | | | | | | 0.500 |
| 5010 | Puhi Road : End of Urban Boundary 0.07 miles south of Haleukana Street > Hulemalu Street | County | 0.856 | 0.988 | 6 | | Rural | | | | | | 0.132 |
| 5020 | Rice Street : Kapule Highway (Route 51) > Kaumualii Highway (Route 50) | County | 0.000 | 1.000 | 4 | | Urban | | | | 1.000 | | |
| 5030 | Nuhou Street : Kaumualii Highway (Route 50) > Halehaka Road | County | 0.000 | 1.034 | 5 | | Urban | | | | | 1.034 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Kauai Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 5035 | Kalepa Street : Kaumualii Highway (Route 50) > Pikake Street | County | 0.000 | 0.430 | 5 | | Urban | | | | | 0.430 | |
| 5040 | Haleko Road : Rice Street (Route 5020) > Nawiliwili Road (Route 58) | County | 0.000 | 0.680 | 5 | | Urban | | | | | 0.680 | |
| 5710 | Umi Street : Rice Street (Route 5020) > Ahukini Road (Route 570) | County | 0.000 | 0.500 | 6 | | Urban | | | | | | 0.500 |
| 5720 | Hardy Street : Kuhio Highway (Route 56) > Rice Street (Route 5020) | County | 0.000 | 0.700 | 5 | | Urban | | | | | 0.700 | |
| 5730 | Puaole Street : Umi Street (Route 5710) > Hoolako Street | County | 0.000 | 0.800 | 6 | | Urban | | | | | | 0.800 |
| 5740 | Laukona Street : Kuhio Highway (Route 56) > Laukona Street [loop] | County | 0.000 | 1.050 | 6 | | Urban | | | | | | 1.050 |
| 5750 | Hanamalu Road : Kuhio Highway (Route 56) > Hehi Road | County | 0.000 | 0.300 | 6 | | Urban | | | | | | 0.300 |
| 5805 | Ulu Street : Kuhio Highway (Route 56) > Kukui Street (Route 581) | County | 0.000 | 0.200 | 6 | | Urban | | | | | | 0.200 |
| 5840 | Haleilio Road : Kuhio Highway (Route 56) > Kaulana Road | County | 0.000 | 1.250 | 6 | | Urban | | | | | | 1.250 |
| 5850 | Nonou Road : Haleilio Road (Route 5840) > Lanakila Road | County | 0.000 | 0.570 | 6 | | Urban | | | | | | 0.570 |
| 5860 | Kawaihau Road : Kuhio Highway (Route 56) > Kapahi Road | County | 0.000 | 3.000 | 5 | | Urban | | | | | 3.000 | |
| 5860 | Kawaihau Road/Kaapuni Road : Kapahi Road > Olohena Road (Route 581) | County | 3.000 | 4.780 | 6 | | Urban | | | | | | 1.780 |
| 5865 | Hauaala Road : Kuhio Highway (Route 56) > Kawaihau Road (Route 5860) | County | 0.000 | 1.060 | 6 | | Urban | | | | | | 1.060 |
| 5870 | Mailihuna Road : Kuhio Highway (Route 56) > Kawaihau Road (Route 5860) | County | 0.000 | 0.570 | 5 | | Urban | | | | | 0.570 | |
| HI10P2 | Nawiliwili Harbor : Nawiliwili Road (Route 58) > Pier 1 and Pier 3 | Port | 0.000 | 0.680 | 5 | Yes | Urban | | | | | | |
| HI9A | Lihue Airport : Ahukini Road (Route 570) > Terminal | Airport | 0.000 | 0.500 | 5 | Yes | Urban | | | | | | |
| TBD | Lihue Mauka Road : Kuhio Highway (Route 56) > Cane Haul Road near Lower Lihue Ditch Reservoir | County | 0.000 | 3.090 | 5 | | Urban | | | | | 3.090 | |
| TBD | Lihue Mauka Road : Cane Haul Road near Lower Lihue Ditch Reservoir > 0.2 miles north of Kaumualii Highway (Route 50) | County | 3.090 | 5.190 | 5 | | Rural | | | | | 2.100 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Kauai Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| TBD | Lihue Mauka Road : 0.2 miles north of Kaumualii Highway (Route 50) > .06 miles north of Kaumualii Highway (Route 50) | County | 5.190 | 5.340 | 5 | | Urban | | | | | 0.150 | |
| TBD | Lihue Mauka Road : 0.06 miles north of Kaumualii Highway (Route 50) > 0.03 miles north of Kaumualii Highway (Route 50) | County | 5.340 | 5.370 | 5 | | Rural | | | | | 0.030 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 61 | Pali Highway/Kalanianaole Highway : Vineyard Boulevard (Route 98) > Kailua Road (Route 61) | State | 0.000 | 9.500 | 2 | Yes | Urban | | 9.500 | | | | |
| 61 | Kailua Road : Kalanianaole Highway (Route 61) > Northeast end of Kawainui bridge (Bridge # 003000610401060/1) | State | 9.500 | 10.586 | 3 | Yes | Urban | | | 1.086 | | | |
| 63 | Kalihi Street : Nimitz Highway (Route 92) > King Street (Route 7402) | State | 0.000 | 0.620 | 4 | | Urban | | | | 0.620 | | |
| 63 | Kalihi Street : King Street (7402) > H-1 underpass | State | 0.620 | 0.860 | 3 | Yes | Urban | | | 0.240 | | | |
| 63 | Likelike Highway : H-1 underpass > Kahekili Highway (Route 83) | State | 0.860 | 8.299 | 2 | Yes | Urban | | 7.439 | | | | |
| 64 | Sand Island Parkway/Sand Island Access Road : 0.20 miles before Ulupono Street (Sand Island park entrance) > Nimitz Highway (Route 92) | State | 0.000 | 2.600 | 3 | Yes | Urban | | | 2.600 | | | |
| 65 | Kaneohe Bay Drive/Mokapu Saddle Road/Mokapu Boulevard : Kamehameha Highway (Route 83) > Kalaheo Avenue (Route 6012) | State | 0.000 | 4.150 | 3 | Yes | Urban | | | 4.150 | | | |
| 72 | Kalanianaole Highway : Kailua Road (Route 61) > Hawaii Kai Drive (7911) | State | 0.000 | 14.270 | 3 | Yes | Urban | | | 14.270 | | | |
| 72 | Kalanianaole Highway : Hawaii Kai Drive (7911) > Ainakoa Avenue (Route 7941) | State | 14.270 | 18.430 | 2 | Yes | Urban | | 4.160 | | | | |
| 76 | Fort Weaver Road : 0.01 miles before Popoi Place (Fort Weaver Gate) > North Road (Route 7145)/Kimopelekane Road | State | 0.000 | 1.280 | 4 | | Urban | | | | 1.280 | | |
| 76 | Fort Weaver Road : North Road (Route 7145)/Kimopelekane Road > Renton Road (Route 7146) | State | 1.280 | 3.990 | 3 | Yes | Urban | | | 2.710 | | | |
| 76 | Fort Weaver Road/Kunia Road : Renton Road (Route 7146) > H-1 overpass | State | 3.990 | 6.617 | 2 | Yes | Urban | | 2.627 | | | | |
| 78 | Moanalua Freeway : Ramp #2 at Aiea Interchange (Route 99) > Beginning of H-1 underpass and H-1 ramp | State | 0.000 | 0.740 | 2 | Yes | Urban | | 0.740 | | | | |
| 80 | Kamehameha Highway : Wilikina Drive (Route 99) > Kamananui Road (Route 99) | State | 0.000 | 1.890 | 3 | Yes | Urban | | | 1.890 | | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 83 | JP Leong Highway : Beginning of Route 83 (Weed Circle) > Start of Urban Boundary, 0.15 miles south of Cane Haul Road | State | 0.000 | 0.627 | 3 | Yes | Rural | | | 0.627 | | | |
| 83 | JP Leong Highway : Start of Urban Boundary, 0.15 miles south of Cane Haul Road > Turtle Bay just east of Kuilima Drive at end of Urban Boundary | State | 0.627 | 13.098 | 3 | Yes | Urban | | | 12.471 | | | |
| 83 | Kamehameha Highway : East of Kuilima Drive (end of Urban Boundary) > Start of Urban Boundary 0.27 east of Pualalea Street | State | 13.098 | 15.139 | 3 | Yes | Rural | | | 2.041 | | | |
| 83 | Kamehameha Highway : Start of Urban Boundary 0.27 east of Pualalea Street > End of Urban Boundary near Kaaawa Stream | State | 15.139 | 28.984 | 3 | Yes | Urban | | | 13.844 | | | |
| 83 | Kamehameha Highway : End of Urban Boundary near Kaaawa Stream > 0.16 miles south of Kaaawa Stream | State | 28.984 | 29.181 | 3 | Yes | Rural | | | 0.197 | | | |
| 83 | Kamehameha Highway/Kahekili Highway/Likelike Highway - 51-0136 Kamehameha Hwy north of property > Pali Highway (Route 61) | State | 29.181 | 43.904 | 3 | Yes | Urban | | | 14.723 | | | |
| 92 | Kamehameha Highway/Nimitz Highway/Ala Moana Boulevard : Pearl Harbor main gate > End of Ala Wai Canal bridge (#003000920400861) | State | 0.000 | 8.670 | 3 | Yes | Urban | | | 8.670 | | | |
| 92 | Ala Moana Boulevard : End of Ala Wai Canal bridge (#003000920400861) > Kalakaua Avenue (Route 7612) | County | 8.670 | 9.260 | 3 | Yes | Urban | | | 0.590 | | | |
| 93 | Farrington Highway : Palailai overpass > 0.33 miles north of Keaau Homesteads Road | State | 0.000 | 15.990 | 3 | Yes | Urban | | | 15.990 | | | |
| 93 | Farrington Highway : 0.33 miles north of Keaau Homesteads Road > Satellite Tracking Station Road (Kaena Point State Park) | State | 15.990 | 19.524 | 4 | | Rural | | | | 3.534 | | |
| **94** | Hanua Street : Farrington Highway (Route 93) > Hanua Street | County | 0.000 | 1.500 | 5 | | Urban | | | | | 1.500 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 95 | Kalaeloa Boulevard : Palailai Overpass > Malakole Street (Route 95) | County | 0.000 | 1.520 | 3 | | Urban | | | 1.520 | | | |
| 98 | Olomea Street/Halona Street/Vineyard Boulevard : Ramp from H-1 > On-ramp to H-1 | State | 0.000 | 1.758 | 3 | Yes | Urban | | | 1.758 | | | |
| 99 | Kamehameha Highway/Kamananui Road : JP Leong Highway (Route 83) > Plantation Road | State | 0.000 | 2.812 | 3 | Yes | Rural | | | 2.812 | | | |
| 99 | Kamehameha Highway : Plantation Road > 0.02 miles South of Kaukonahua Rd | State | 2.812 | 6.784 | 3 | Yes | Urban | | | 3.972 | | | |
| 99 | Kamananui Rd/Wilikina Dr : 0.02 miles south of Kaukonahua Rd > Wilikina Drive near Kaukonahua Stream (Start of Urban Boundary) | State | 6.784 | 7.845 | 3 | Yes | Rural | | | 1.061 | | | |
| 99 | Wilikina Drive : Wilikina Drive near Kaukonahua Stream (Start of Urban Boundary) > Kunia Road (Route 750) | State | 7.845 | 9.100 | 3 | Yes | Urban | | | 1.255 | | | |
| 99 | Wilikina Drive/Kamehameha Highway/Farrington Highway : Kunia Road (Route 750) > Acacia Road (Route 7228) | State | 9.100 | 18.268 | 2 | Yes | Urban | | 9.168 | | | | |
| 99 | Kamehameha Highway : Acacia Road (Route 7228) > End of route (Pearl Harbor interchange) | State | 18.268 | 23.842 | 3 | Yes | Urban | | | 5.574 | | | |
| 750 | Kunia Road : H-1 interchange > 1.06 miles past Anonui Street | State | 0.000 | 2.000 | 3 | Yes | Urban | | | 2.000 | | | |
| 750 | Kunia Road : 1.06 miles past Anonui Street > 0.15 miles before divided highway | State | 2.000 | 7.040 | 3 | Yes | Urban | | | 5.040 | | | |
| 750 | Kunia Road : 0.15 miles before divided highway > Wilikina Drive (Route 99) | State | 7.040 | 8.046 | 3 | Yes | Urban | | | 1.006 | | | |
| 801 | Kaukonahua Road : Kamehameha Highway (Route 80) > Nui Ave | County | 0.000 | 0.475 | 4 | | Urban | | | | 0.475 | | |
| 801 | Kaukonahua Road : Nui Ave > Wilikina Drive (Route 803) | County | 0.475 | 2.182 | 4 | | Rural | | | | 1.707 | | |
| 803 | Wilikina Drive/Kaukonahua Road : Kamananui Road (Route 99) > Beginning of Urban Boundary | County | 0.000 | 5.040 | 4 | | Rural | | | | 5.040 | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 803 | Kaukonahua Road : Beginning of urban boundary > Farrington Highway (Route 930) | County | 5.040 | 5.840 | 4 | | Urban | | | | 0.800 | | |
| 901 | Fort Barrette Road/Makakilo Drive : Franklin D Roosevelt Avenue > Farrington Highway | State | 0.000 | 1.250 | 3 | Yes | Urban | | | 1.250 | | | |
| 930 | Farrington Highway : 0.09 miles west of Dillingham Airfield Access Road (Kaena Point State Park bounday) > 0.06 miles east of Mokuleia Beach Park access road | State | 0.000 | 1.232 | 4 | | Rural | | | | 1.232 | | |
| 930 | Farrington Highway/Kaukonahua Road/Farrington Highway : 0.06 miles east of Mokuleia Beach Park access road > Joseph P Leong Highway (Route 83) | State | 1.232 | 7.931 | 4 | | Urban | | | | 6.699 | | |
| 6001 | Kailua Road : Kawainui Stream bridge (#003000610401060)> Oneawa Street (Route 6016) | County | 0.000 | 0.164 | 3 | Yes | Urban | | | 0.164 | | | |
| 6010 | Hamakua Drive : Keolu Drive (Route 6013) > Kailua Road (Route 61) | County | 0.000 | 0.850 | 4 | | Urban | | | | 0.850 | | |
| 6011 | Kailua Road : Oneawa Street (Route 6016) > Kalaheo Avenue (Route 6012) | County | 0.000 | 1.060 | 5 | | Urban | | | | | 1.060 | |
| 6012 | Kalaheo Avenue: Kailua Road (Route 6011) > Mokapu Boulevard (Route 65) | County | 0.000 | 2.100 | 5 | | Urban | | | | | 2.100 | |
| 6013 | Keolu Drive : Kalanianaole Highway (Route 72) > Keolu Drive | County | 0.000 | 3.170 | 5 | | Urban | | | | | 3.170 | |
| 6014 | Kuulei Road : Kailua Road (Route 6011) > Kalaheo Avenue (Route 6012) | County | 0.000 | 0.600 | 4 | | Urban | | | | 0.600 | | |
| 6015 | Mokapu Road : North Kalaheo Avenue (Route 6012) > Kaneohe Marine Corps Air Station | County | 0.000 | 0.600 | 5 | | Urban | | | | | 0.600 | |
| 6016 | Oneawa Street : Kailua Road (Route 6011) > Mokapu Boulevard (Route 65) | County | 0.000 | 1.300 | 4 | | Urban | | | | 1.300 | | |
| 6017 | Wanaao Road : Kailua Road (Route 6011) > Keolu Drive (Route 6013) | County | 0.000 | 0.850 | 6 | | Urban | | | | | | 0.850 |
| 6020 | Nanialii Street : Keolu Drive (Route 6013) > Kina Street (Route 6048) | County | 0.000 | 0.270 | 6 | | Urban | | | | | | 0.270 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 6025 | Kanapuu Drive : Kalanianaole Highway (Route 72) > Keolu Drive (Route 6013) | County | 0.000 | 0.730 | 6 | | Urban | | | | | | 0.730 |
| 6041 | Kainalu Drive : Kainui Drive (Route 6042) > Kailua Road (6011) | County | 0.000 | 1.760 | 6 | | Urban | | | | | | 1.760 |
| 6042 | Kainui Drive : Oneawa Street (Route 6016) > Kalaheo Avenue (Route 6012) | County | 0.000 | 0.700 | 6 | | Urban | | | | | | 0.700 |
| 6043 | Kihapai Street/Punaa Street : Oneawa Street (Route 6016) > Oneawa Street (Route 6016) | County | 0.000 | 1.030 | 6 | | Urban | | | | | | 1.030 |
| 6044 | Kalama Street : Oneawa Street (Route 6016) > Kainalu Drive (Route 6041) | County | 0.000 | 0.380 | 6 | | Urban | | | | | | 0.380 |
| 6045 | South Kalaheo Avenue/Lihiwai Road/Kawailoa Road : Kailua Road (Route 6011) > Alala Road | County | 0.000 | 0.530 | 4 | | Urban | | | | 0.530 | | |
| 6045 | Alala Road : Kawailoa Road > Mokulua Drive | County | 0.530 | 0.600 | 5 | | Urban | | | | | 0.070 | |
| 6046 | Awakea Road/ Ka Awakea Road : Wanaao Road (Route 6017) > Papalani Street (Route 6047) | County | 0.000 | 0.330 | 6 | | Urban | | | | | | 0.330 |
| 6047 | Papalani Street : Wanaao Road (Route 6017) > Keolu Drive (Route 6013) | County | 0.000 | 0.430 | 6 | | Urban | | | | | | 0.430 |
| 6048 | Hele Street/Kina Street : Keolu Drive (Route 6013) > Hele Street (Route 6048) | County | 0.000 | 1.650 | 6 | | Urban | | | | | | 1.650 |
| 6049 | Akamai Street / Akumu Street : Keolu Drive (Route 6013) > Keolu Drive (Route 6013) | County | 0.000 | 1.200 | 6 | | Urban | | | | | | 1.200 |
| 6050 | Ulumanu Drive / Ulupii Street/Uluhala Street : Kailua Road (Route 61) > Kalanianaole Highway (Route 61) | County | 0.000 | 1.090 | 6 | | Urban | | | | | | 1.090 |
| 6051 | Auloa Road/Maunawili Road : Kalanianaole Highway (Route 61) > Aloha Oe Drive | County | 0.000 | 1.260 | 6 | | Urban | | | | | | 1.260 |
| 6510 | Kamehameha Highway : Kaneohe Bay Drive (Route 65) > Haiku Road (Route 6542) | County | 0.000 | 1.420 | 4 | | Urban | | | | 1.420 | | |
| 6510 | Kamehameha Highway : Haiku Road (Route 6542) > Kahekili Highway (Route 83) | County | 1.420 | 5.570 | 5 | | Urban | | | | | 4.150 | |
| 6511 | Kaneohe Bay Drive : Mokapu Saddle Road (Route 65) > Mokapu Boulevard (Route 65) | County | 0.000 | 2.620 | 5 | | Urban | | | | | 2.620 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 6542 | Haiku Road : Kamehameha Highway (Route 6510) > Kahekili Highway (Route 83) | County | 0.000 | 0.700 | 4 | | Urban | | | | 0.700 | | |
| 6542 | Haiku Road : Kahekili Highway (Route 83) > Kahuhipa Street (Route 6544) | County | 0.700 | 1.200 | 6 | | Urban | | | | | | 0.500 |
| 6543 | Keaahala Road : Kamehameha Highway (Route 6510) > Pookela Street | County | 0.000 | 0.750 | 5 | | Urban | | | | | 0.750 | |
| 6544 | Kahuhipa Street : Kamehameha Highway (Route 6510) > Kahekili Highway (Route 83) | County | 0.000 | 0.630 | 5 | | Urban | | | | | 0.630 | |
| 6544 | Kahuhipa Street : Kahekili Highway (Route 83) > Haiku Road (Route 6542) | County | 0.630 | 1.190 | 6 | | Urban | | | | | | 0.560 |
| 6545 | Lilipuna Road/Wailele Road/William Henry Road: Kamehameha Highway (Route 6510) > Kamehameha Highway (Route 6510) | County | 0.000 | 1.370 | 6 | | Urban | | | | | | 1.370 |
| 6546 | Waikalua Road : Kamehameha Highway (Route 6510) > Kaneohe Beach Park | County | 0.000 | 1.030 | 5 | | Urban | | | | | 1.030 | |
| 6547 | Anoi Road/Luluku Road : Kapunahala Elementary entrance > Kamehameha Highway (Route 83) | County | 0.000 | 1.070 | 6 | | Urban | | | | | | 1.070 |
| 6548 | Koa Kahiko Street/Kenela Street/Namoku Street : Kamehameha Highway (Route 83) > Mokulele Drive (Route 6549) | County | 0.000 | 0.800 | 6 | | Urban | | | | | | 0.800 |
| 6549 | Mokulele Drive : Kamehameha Highway (Route 83) > Kaneohe Bay Drive (Route 65) | County | 0.000 | 1.160 | 5 | | Urban | | | | | 1.160 | |
| 6551 | Aumoku Street : Kaneohe Bay Drive (Route 65) > Koa Kahiko Street (Route 6548) | County | 0.000 | 0.180 | 6 | | Urban | | | | | | 0.180 |
| 6553 | Hui Iwa St/Hui Ulili St/Ahuimanu Pl : Kahekili Hwy (S junction) > Kahekili Hwy (N junction) (Route 83) | County | 0.000 | 1.390 | 6 | | Urban | | | | | | 1.390 |
| 6554 | Waihee Road : Kamehameha Highway (Route 83)> Ahilama Road | County | 0.000 | 0.430 | 6 | | Urban | | | | | | 0.430 |
| 7010 | California Avenue : Kilani Avenue (Route 7011) > Kamehameha Highway (Route 80) | County | 0.000 | 0.900 | 5 | | Urban | | | | | 0.900 | |
| 7010 | California Avenue : Kamehameha Highway (Route 80) > Uuku Street (Route 7041) | County | 0.900 | 2.100 | 4 | | Urban | | | | 1.200 | | |
| 7010 | California Avenue : Uuku Street (Route 7041) > 0.20 miles northeast of Hill Drive | County | 2.100 | 3.260 | 6 | | Urban | | | | | | 1.160 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7011 | Kilani Avenue : California Avenue (Route 7010) > Cane Street | County | 0.000 | 1.110 | 5 | | Urban | | | | | 1.110 | |
| 7011 | Kilani Avenue : Cane Street > Glen Avenue (Route 7041) | County | 1.110 | 1.370 | 6 | | Urban | | | | | | 0.260 |
| 7012 | Whitmore Avenue : Kamehameha Highway (Route 80) > Entrance to Naval Reservation | State | 0.000 | 1.870 | 6 | | Urban | | | | | | 1.870 |
| 7013 | Meheula Parkway : Kaapeha Street > Lanikuhana Avenue (Route 7042) | County | 0.000 | 3.780 | 4 | | Urban | | | | 3.780 | | |
| 7041 | Glen Avenue/Royal Palm Drive/Uuku Street : Kilani Avenue (Route 7011) > California Avenue (Route 7010) | County | 0.000 | 0.820 | 6 | | Urban | | | | | | 0.820 |
| 7042 | Lanikuhana Avenue : Ahiku Street > Meheula Parkway (Route 7013) | County | 0.000 | 1.230 | 6 | | Urban | | | | | | 1.230 |
| 7042 | Lanikuhana Avenue : Meheula Parkway (Route 7013) > Meheula Parkway (Route 7013) | County | 1.230 | 3.880 | 5 | | Urban | | | | | 2.650 | |
| 7043 | Kuahelani Avenue : Meheula Parkway (Route 7013) > Kamehameha Highway (Route 99) | County | 0.000 | 0.900 | 5 | | Urban | | | | | 0.900 | |
| 7043 | Kuahelani Avenue : Kamehameha Highway (Route 99) > Lanikuhana Avenue (Route 7042) | County | 0.900 | 2.200 | 6 | | Urban | | | | | | 1.300 |
| 7101 | Farrington Highway : Kunia Road (Route 76) > Kamehameha Highway (Route 99) | State | 0.000 | 2.990 | 3 | Yes | Urban | | | 2.990 | | | |
| 7110 | Farrington Highway : Fort Weaver Road (Route 76) > West Access to Old Fort Weaver Road | State | 0.000 | 0.606 | 4 | | Urban | | | | 0.606 | | |
| 7139 | Waipio Point Access Road : Farrington Highway (Route 7101) > Waipio Soccer Complex gate | County | 0.000 | 0.840 | 6 | | Urban | | | | | | 0.840 |
| 7140 | Geiger Road : Franklin D Roosevelt Avenue (Route 8940) > Fort Weaver Road (Route 76) | County | 0.000 | 1.180 | 5 | | Urban | | | | | 1.180 | |
| 7141 | Iroquois Road : Fort Weaver Road (Route 76) > Military reservation (West Loch) | State | 0.000 | 1.496 | 5 | | Urban | | | | | 1.496 | |
| 7142 | Waipahu Street : Kunia Road (Route 76)> Kamehameha Highway (Route 99) | County | 0.000 | 3.030 | 4 | | Urban | | | | 3.030 | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7143 | Waipahu Depot Road : Waipahu Street (Route 7142) > Farrington Highway (Route 7101) | County | 0.000 | 0.200 | 5 | | Urban | | | | | 0.200 | |
| 7144 | Hanakahi Street : Fort Weaver Road (Route 76) > North Road (Route 7145) | County | 0.000 | 1.000 | 6 | | Urban | | | | | | 1.000 |
| 7145 | North Road : Fort Weaver Road (Route 76) > Hanakahi Street (Route 7144) | County | 0.000 | 0.730 | 5 | | Urban | | | | | 0.730 | |
| 7146 | Renton Road : Fort Weaver Road (Route 76) > 0.01 miles west of Kihi Street | County | 0.000 | 1.700 | 5 | | Urban | | | | | 1.700 | |
| 7147 | Old Fort Weaver Road: Farrington Highway (Route 7110) > Fort Weaver Road (Route 76) | County | 0.000 | 1.270 | 6 | | Urban | | | | | | 1.270 |
| 7148 | Papipi Road : Fort Weaver Road (Route 76) > Pohakupuna Road | County | 0.000 | 0.800 | 6 | | Urban | | | | | | 0.800 |
| 7149 | Mahoe Street : Waipahu Street (Route 7142) > Hiapo Street | County | 0.000 | 0.260 | 6 | | Urban | | | | | | 0.260 |
| 7150 | Kolowaka Drive : Fort Weaver Road (Route 76) > Kapolei Parkway (Route 8920) | County | 0.000 | 0.560 | 5 | | Urban | | | | | 0.560 | |
| 7160 | Ka Uka Boulevard : H-2 > Kamehameha Highway (Route 99) | County | 0.000 | 1.000 | 4 | | Urban | | | | 1.000 | | |
| 7165 | Waipio Uka Street : Ka Uka Boulevard (Route 7160) > Kamehameha Highway (Route 99) | County | 0.000 | 1.430 | 5 | | Urban | | | | | 1.430 | |
| 7170 | Paiwa Street : Farrington Highway (Route 7101) > Lumiaina Street (Route 7175) | County | 0.000 | 1.420 | 5 | | Urban | | | | | 1.420 | |
| 7172 | Lumiaina Street/Managers Drive/Mokuola Street: Paiwa Street (Route 7170) > Farrington Highway (Route 7101) | County | 0.000 | 2.100 | 6 | | Urban | | | | | | 2.100 |
| 7175 | Lumiaina Street : Paiwa Street (Route 7170) > Kamehameha Highway (Route 99) | County | 0.000 | 0.980 | 5 | | Urban | | | | | 0.980 | |
| 7180 | Kupuna Loop : South junction with Kunia Road (Route 750) > North junction with Kunia Road (Route 750) | County | 0.000 | 1.930 | 5 | | Urban | | | | | 1.930 | |
| **7190** | Anonui Street: Kunia Road (Route 750) > Anoiki Street | County | 0.000 | 1.700 | 6 | | Urban | | | | | | 1.700 |
| 7210 | Moanalua Road : Waimano Home Road (Route 7211) > Kaimakani Street | County | 0.000 | 3.470 | 4 | | Urban | | | | 3.470 | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7211 | Waimano Home Road : Kamehameha Highway (Route 99) > Komo Mai Drive (Route 7243) | County | 0.000 | 1.250 | 4 | | Urban | | | | 1.250 | | |
| 7211 | Waimano Home Road : Komo Mai Drive (Route 7243) > Entrance to Waimano Hospital | County | 1.250 | 2.230 | 5 | | Urban | | | | | 0.980 | |
| 7212 | Kuala Street : Waimano Home Road (Route 7211) > Kamehameha Highway | County | 0.000 | 1.020 | 5 | | Urban | | | | | 1.020 | |
| 7225 | Hoomalu Street : Waimano Home Road (Route 7211) > Komo Mai Drive (Route 7243) | County | 0.000 | 1.230 | 6 | | Urban | | | | | | 1.230 |
| 7226 | Puu Poni Street : Kamehameha Highway (Route 99) > Hoomalu Street (Route 7225) | County | 0.000 | 0.248 | 6 | | Urban | | | | | | 0.248 |
| 7228 | Acacia Road : Kuala Street (Route 7212) > Kamehameha Highway (Route 99) | County | 0.000 | 0.200 | 5 | | Urban | | | | | 0.200 | |
| 7239 | Ulune Street/Halawa Valley Road : Kahuapaani Street (Route 7241) > Iwaiwa Street | State | 0.000 | 0.329 | 5 | | Urban | | | | | 0.329 | |
| 7241 | Kahuapaani Street : Salt Lake Boulevard (Route 7311) > Ulune Street (Route 7239) | State | 0.000 | 0.880 | 4 | | Urban | | | | 0.880 | | |
| 7241 | Kahuapaani Street : Ulune Street > Halawa Heights Road (Route 7241) | State | 0.880 | 0.990 | 5 | | Urban | | | | | 0.110 | |
| 7241 | Halawa Heights Road : Kahuapaani Street > Camp Smith Gate #3 | State | 0.990 | 2.320 | 6 | | Urban | | | | | | 1.330 |
| 7243 | Komo Mai Drive : Aumakua Street > Kaahele Street (Route 7251) | County | 0.000 | 2.910 | 5 | | Urban | | | | | 2.910 | |
| 7244 | Kaonohi Street : Kamehameha Highway (Route 99) > Moanalua Road (Route 7210) | County | 0.000 | 0.350 | 4 | | Urban | | | | 0.350 | | |
| 7244 | Kaonohi Street : Moanalua Road (Route 7210) > 0.10 miles north of Iho Place | County | 0.350 | 1.800 | 5 | | Urban | | | | | 1.450 | |
| 7245 | Kaamilo Street : Moanalua Road (Route 7210) > Aiea Heights Drive (Route 7246) | County | 0.000 | 1.660 | 6 | | Urban | | | | | | 1.66 |
| 7246 | Aiea Heights Drive : Moanalua Road (Route 7210) > Ulune Street | County | 0.000 | 0.340 | 5 | | Urban | | | | | 0.340 | |
| 7246 | Aiea Heights Drive : Ulune Street > Keaiwa State Park | County | 0.340 | 2.658 | 6 | | Urban | | | | | | 2.138 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7247 | Hoolaulea Street : Waimano Home Road (S junction) (Route 7211) > Waimano Home Road (N junction) (Route 7211) | County | 0.000 | 2.080 | 6 | | Urban | | | | | | 2.080 |
| 7248 | Ulune Street : Aiea Heights Drive (Route 7246) > Kahuapaani Street (Route 7241) | County | 0.000 | 0.830 | 5 | | Urban | | | | | 0.830 | |
| 7249 | Lehua Street : Kamehameha Highway (Route 99) > Lehua Elementary School Access Road | County | 0.000 | 0.320 | 5 | | Urban | | | | | 0.320 | |
| 7250 | Kaahumanu Street : Kamehameha Highway (Route 99) > Moanalua Road (Route 7210) | County | 0.000 | 0.260 | 4 | | Urban | | | | 0.260 | | |
| 7250 | Kaahumanu Street : Moanalua Road (Route 7210) > Komo Mai Drive (Route 7243) | County | 0.260 | 1.020 | 5 | | Urban | | | | | 0.760 | |
| 7251 | Kaahele Street : Moanalua Road (Route 7210) > 0.2 miles north of Hiliu Place | County | 0.000 | 1.850 | 6 | | Urban | | | | | | 1.85 |
| 7260 | Honomanu Street : Kamehameha Highway (Route 99) > Moanalua Road (Route 7210) | County | 0.000 | 0.200 | 5 | | Urban | | | | | 0.200 | |
| 7261 | Moanalua Loop : Moanalua Road (Route 7210) > Kaonohi Street (Route 7244) | County | 0.000 | 0.430 | 6 | | Urban | | | | | | 0.430 |
| 7262 | Kanuku Street : Hekaha Street (Route 7263) > Kamehameha Highway (Route 99) | County | 0.000 | 0.400 | 6 | | Urban | | | | | | 0.400 |
| 7263 | Hekaha Street : Kamehameha Highway (Route 99) > Moanalua Road (Route 7210) | County | 0.000 | 0.440 | 6 | | Urban | | | | | | 0.440 |
| 7310 | Puuloa Road : Kamehameha Highway/Nimitz Highway (Route 92) > Southwest end of Puuloa Overpass | State | 0.000 | 1.030 | 3 | Yes | Urban | | | 1.030 | | | |
| 7311 | Salt Lake Boulevard : Puuloa Road (Route 7310) > Kamehameha Highway (Route 99) | County | 0.000 | 3.430 | 4 | | Urban | | | | 3.430 | | |
| 7341 | Kikowaena Street/Ahua Street : Moanalua Freeway (Route 201) > Nimitz Highway (Route 92) | County | 0.000 | 0.790 | 5 | | Urban | | | | | 0.790 | |
| 7342 | Pukoloa Street : Puuloa Road (Route 7310) > Ahua Street (Route 7341) | County | 0.000 | 0.260 | 5 | | Urban | | | | | 0.260 | |
| 7343 | Arizona Road/Camp Catlin Road : Salt Lake Boulevard (Route 7311) > Nimitz Highway (Route 92) | County | 0.000 | 0.530 | 5 | | Urban | | | | | 0.530 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7344 | Ala Aolani Street : Moanalua Freeway (Route 210) > Ala Noe Place | County | 0.000 | 1.460 | 6 | | Urban | | | | | | 1.460 |
| 7345 | Jarret White Road : Moanalua Freeway (southwest Puuloa Road overpass) (Route 210) > Tripler Hospital gate | State | 0.000 | 0.550 | 5 | Yes | Urban | | | | | 0.550 | |
| 7346 | Ala Mahamoe Street : Jarret White Road (Route 7345) > Kaua Street | County | 0.000 | 1.500 | 6 | | Urban | | | | | | 1.500 |
| 7346 | Kaua Street : Ala Mahamoe Street > Middle Street (Route 7414) | County | 1.500 | 2.110 | 5 | | Urban | | | | | 0.610 | |
| 7347 | Ala Lilikoi Street : Salt Lake Boulevard (Route 7311) > Likini Street (Route 7348) | County | 0.000 | 0.340 | 6 | | Urban | | | | | | 0.340 |
| 7348 | Pakini Street / Likini Street : Salt Lake Boulevard (Route 7311) > Ala Napunani Street (Route 7349) | County | 0.000 | 2.360 | 6 | | Urban | | | | | | 2.360 |
| 7349 | Ala Napunani Street : Salt Lake Boulevard (Route 7311) > Ala Aolani Street (Route 7344) | County | 0.000 | 1.320 | 5 | | Urban | | | | | 1.320 | |
| 7350 | Bougainville Drive : Radford Drive (Route 7351) > Salt Lake Boulevard (Route 7311) | State | 0.000 | 0.586 | 5 | | Urban | | | | | 0.586 | |
| 7351 | Radford Drive : Kamehameha Highway (Route 99) > Bougainville Drive (Route 7350) | State | 0.000 | 0.230 | 5 | | Urban | | | | | 0.230 | |
| 7401 | Kamehameha Highway : Middle Street (Route 7415) > 0.10 miles past Middle Street (Route 7415) | State | 0.000 | 0.100 | 4 | | Urban | | | | 0.100 | | |
| 7401 | Kamehameha Highway/Dillingham Boulevard : 0.10 miles past Middle Street (Route 7415) > King Street (Route 7402) | County | 0.100 | 1.950 | 4 | | Urban | | | | 1.850 | | |
| 7402 | King Street : Kalihi Street (Route 63) > Harding Avenue (Route 7842) | County | 0.000 | 5.196 | 3 | Yes | Urban | | | 5.196 | | | |
| 7410 | King Street : Middle Street (Route 7415) > Kalihi Street (Route 63) | County | 0.000 | 0.715 | 4 | | Urban | | | | 0.715 | | |
| 7411 | Houghtailing Street/Waiakamilo Road : School Street (Route 7414) > Nimitz Highway (Route 92) | County | 0.000 | 1.130 | 4 | | Urban | | | | 1.130 | | |
| 7412 | Liliha Street : Wyllie Street (Route 7446) > H-1 Overpass | County | 0.000 | 0.980 | 5 | | Urban | | | | | 0.980 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7413 | Liliha Street : King Street (Route 7402) > H-1 Overpass | State | 0.000 | 0.343 | 4 | | Urban | | | | 0.343 | | |
| 7414 | School Street : Lusitana Street (Route 7521) > Notley Street (Route 74140) | County | 0.000 | 2.690 | 4 | | Urban | | | | 2.690 | | |
| 7414 | Middle Street : Notley Street (Route 74140) > Kaua Street (Route 7346) | County | 2.690 | 3.100 | 4 | Yes | Urban | | | | 0.410 | | |
| 7415 | Middle Street : Kaua Street (Route 7346) > Kamehameha Highway (Route 7401) | State | 0.000 | 0.517 | 4 | | Urban | | | | 0.517 | | |
| 7420 | Palama Street : King Street (Route 7402) > Vineyard Boulevard (Route 98) | County | 0.000 | 0.200 | 6 | | Urban | | | | | | 0.200 |
| 7425 | Iwilei Road/Pacific Street : King Street (Route 7402) > Nimitz Highway (Route 92) | County | 0.000 | 0.660 | 6 | | Urban | | | | | | 0.660 |
| 7430 | Kalihi Street/Auiki Street : Nimitz Highway (Route 92) > Sand Island Access Road (Route 64) | County | 0.000 | 0.660 | 5 | | Urban | | | | | 0.660 | |
| 7441 | Kalihi Street : Likelike Highway (Route 63) > Wailele Street | County | 0.000 | 0.760 | 5 | | Urban | | | | | 0.760 | |
| 7441 | Kalihi Street : Wailele Street > Kalaepaa Drive | County | 0.760 | 1.740 | 6 | | Urban | | | | | | 0.980 |
| 7442 | Kamehameha IV Road : School Street (Route 7414) > Likelike Highway (Route 63) | County | 0.000 | 0.700 | 5 | | Urban | | | | | 0.700 | |
| 7443 | Nalanieha Street : Likelike Highway (Route 63) > Kalihi Street (Route 7441) | County | 0.000 | 0.150 | 6 | | Urban | | | | | | 0.150 |
| 7444 | Kealia Drive/Hillcrest Street/Houghtailing Street : Makanani Drive (Route 7445) > School Street (Route 7414) | County | 0.000 | 0.600 | 6 | | Urban | | | | | | 0.600 |
| 7445 | Judd Street/Iholena Street/Lolena Street/Makanani Drive : Nuuanu Avenue (Route 7522) > Kealia Drive (Route 7444) | County | 0.000 | 1.340 | 6 | | Urban | | | | | | 1.340 |
| 7446 | Wyllie Street/Alewa Drive : Liliha Street (Route 7412)> Hoomaikai Street | County | 0.000 | 2.038 | 6 | | Urban | | | | | | 2.380 |
| 7447 | Lanakila Avenue /Judd Street : School Street (Route 7414) > Iholena Street (Route 7445) | County | 0.000 | 0.400 | 5 | | Urban | | | | | 0.400 | |
| 7448 | Puuhale Road : Nimitz Highway (Route 92) > Dillingham Boulevard (Route 7401) | County | 0.000 | 0.250 | 5 | | Urban | | | | | 0.250 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7450 | Mokauea Street : Nimitz Highway (Route 92) > King Street (Route 7410) | County | 0.000 | 0.580 | 6 | | Urban | | | | | | 0.580 |
| 7501 | Atkinson Drive : Ala Moana Boulevard (Route 92) > Kapiolani Boulevard (Route 7503) | County | 0.000 | 0.300 | 4 | | Urban | | | | 0.300 | | |
| 7502 | Beretania Street : University Avenue (Route 7615) > King Street (Route 7402) | County | 0.000 | 3.299 | 3 | Yes | Urban | | | 3.299 | | | |
| 7503 | Kapiolani Boulevard : South Street (Route 7510) >Waialae Avenue (Route 7801) | County | 0.000 | 3.120 | 3 | Yes | Urban | | | 3.120 | | | |
| 7504 | Alakea Street : Nimitz Highway (Route 92) > Beretania Street (Route 7502) | County | 0.000 | 0.400 | 3 | Yes | Urban | | | 0.400 | | | |
| 7504 | Queen Emma Street/Kukui Street : Beretania Street (Route 7502) > Pali Highway (Route 7505) | County | 0.400 | 0.600 | 4 | | Urban | | | | 0.200 | | |
| 7505 | Pali Highway/Bishop Street : Vineyard Boulevard (Route 98) > Nimitz Highway (Route 92) | County | 0.000 | 0.620 | 3 | Yes | Urban | | | 0.620 | | | |
| 7510 | South Street/Alapai Street : Ala Moana Boulevard (Route 92) > Beretania Street (Route 7502) | County | 0.000 | 0.780 | 4 | | Urban | | | | 0.780 | | |
| 7510 | Alapai Street/Lusitana Street : Beretania Street (Route 7502) > Vineyard Boulevard (Route 98) | County | 0.780 | 1.080 | 5 | | Urban | | | | | 0.300 | |
| 7511 | Ward Avenue : Ala Moana Boulevard (Route 92) > H-1 | County | 0.000 | 0.960 | 3 | Yes | Urban | | | 0.960 | | | |
| 7511 | Ward Avenue : H-1 > Prospect Street (Route 7518) | County | 0.960 | 1.150 | 4 | | Urban | | | | 0.190 | | |
| 7512 | Pensacola Street : Nehoa Street (Route 7518) > Luanalilo Street (Route 7526) | County | 0.000 | 0.500 | 5 | | Urban | | | | | 0.500 | |
| 7512 | Pensacola Street/Waimanu Street : Lunalilo Street (Route 7526) > Piikoi Street (Route 7513) | County | 0.500 | 1.400 | 3 | Yes | Urban | | | 0.900 | | | |
| 7513 | Piikoi Street : Ala Moana Boulevard (Route 92) > Lunalilo Street (Route 7526) | County | 0.000 | 0.940 | 4 | | Urban | | | | 0.940 | | |
| 7513 | Piikoi Street : Lunalilo Street (Route 7526) > Pensacola Street (Route 7512) | County | 0.940 | 1.370 | 6 | | Urban | | | | | | 0.430 |

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## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7514 | Keeaumoku Street : Kapiolani Boulevard (Route 7503) > Wilder Avenue (Route 7525) | County | 0.000 | 0.900 | 4 | | Urban | | | | 0.900 | | |
| 7515 | Queen Street : Kamakee Street (Route 7552) > Nimitz Highway (Route 92) | County | 0.000 | 1.270 | 4 | | Urban | | | | 1.270 | | |
| 7516 | Punchbowl Street : H-1 > King Street (Route 7402) | County | 0.000 | 0.570 | 3 | Yes | Urban | | | 0.570 | | | |
| 7516 | Punchbowl Street : King Street (Route 7402) > Ala Moana Boulevard (Route 92) | County | 0.570 | 0.960 | 4 | | Urban | | | | 0.390 | | |
| 7517 | Auwaiolimu Street : Lusitana Street (Route 7521) > Nehoa Street (Route 7518) | County | 0.000 | 0.940 | 4 | | Urban | | | | 0.940 | | |
| 7518 | Iolani Avenue / Prospect Street / Nehoa Street : Lusitana Street (Route 7521) > Punahou Street (Route 7614) | County | 0.000 | 1.810 | 5 | | Urban | | | | | 1.810 | |
| 7519 | Kinau Street : Alapai Street (Route 7510) > Keeaumoku Street (Route 7514) | County | 0.000 | 0.900 | 4 | | Urban | | | | 0.900 | | |
| 7520 | Kukui Street : Nuuanu Avenue (Route 7522) > Pali Highway (Route 7505) | County | 0.000 | 0.120 | 4 | | Urban | | | | 0.120 | | |
| 7521 | Lusitana Street : School Street (Route 7414) > Auwaiolimu Street (Route 7517) | County | 0.000 | 0.420 | 6 | | Urban | | | | | | 0.420 |
| 7521 | Lusitana Street/Pauoa Road : Auwaiolimu Street > Nuuanu Avenue (Route 7522) | County | 0.420 | 0.830 | 4 | | Urban | | | | 0.410 | | |
| 7522 | Nuuanu Avenue : Wyllie Street (Route 7524) > Nimitz Highway (Route 92) | County | 0.000 | 1.700 | 4 | | Urban | | | | 1.700 | | |
| 7523 | Queen Emma Street : Kukui Street (Route 7504) > School Street (Route 7414) | County | 0.000 | 0.320 | 4 | | Urban | | | | 0.320 | | |
| 7524 | Wyllie Street : Liliha Street (Route 7412)> Nuuanu Avenue (Route 7522) | County | 0.000 | 0.270 | 5 | | Urban | | | | | 0.270 | |
| 7525 | Wilder Avenue : Dole Street (Route 7611) > Pensacola Street (Route 7512) | County | 0.000 | 1.270 | 4 | | Urban | | | | 1.270 | | |
| 7526 | Lunalilo Street : H-1 off ramp > Ward Avenue (Route 7511) | County | 0.000 | 0.620 | 3 | Yes | Urban | | | 0.620 | | | |
| 7527 | Bethel Street : Nimitz Highway (Route 92) > Beretania Street (Route 7502) | County | 0.000 | 0.320 | 4 | | Urban | | | | 0.320 | | |
| 7528 | Pohukaina Street/Kamani Street : Punchbowl Street (Route 7516) > Auahi Street | County | 0.000 | 0.600 | 6 | | Urban | | | | | | 0.600 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7528 | Auahi Street/Queen Street : Kamani Street > Ala Moana Boulevard (Route 92) | County | 0.600 | 1.200 | 5 | | Urban | | | | | 0.600 | |
| 7530 | Sheridan Street : Rycroft Street > Kapiolani Boulevard (Route 7503) | County | 0.000 | 0.270 | 6 | | Urban | | | | | | 0.270 |
| 7541 | Kaheka Street : Kapiolani Boulevard (Route 7503) > King Street (Route 7402) | County | 0.000 | 0.420 | 5 | | Urban | | | | | 0.420 | |
| 7542 | Keola Street/Kuakini Street : Hala Drive > Lanakila Avenue (Route 7447) | County | 0.000 | 0.200 | 5 | | Urban | | | | | 0.200 | |
| 7542 | Kuakini Street : Lanakila Avenue > Nuuanu Avenue (Route 7522) | County | 0.200 | 0.940 | 5 | | Urban | | | | | 0.740 | |
| 7542 | Kuakini Street : Nuuanu Avenue (Route 7522) > Pali Highway (Route 61) | County | 0.940 | 1.040 | 5 | | Urban | | | | | 0.100 | |
| 7543 | Hotel Street : Richards Street (Route 7544) > King Street (Route 7402) [bus only] | County | 0.000 | 0.570 | 6 | | Urban | | | | | | 0.570 |
| 7544 | Richards Street : Beretania Street (Route 7502) > King Street (Route 7042) | County | 0.000 | 0.230 | 6 | | Urban | | | | | | 0.230 |
| 7545 | Pacific Heights Road : Pauoa Road (Route 7521) > End of route | County | 0.000 | 2.200 | 6 | | Urban | | | | | | 2.200 |
| 7546 | Booth Road/Kekuanoni Street/Kapulei Street/Pauoa Road : Pacific Heights Road (Route 7545) > Lusitana Street (Route 7521) | County | 0.000 | 1.900 | 6 | | Urban | | | | | | 1.900 |
| 7547 | Hookui Street/Puowaina Drive/Tantalus Drive/Makiki Heights Drive/Mott Smith Drive : Auwaiolimu Street (Route 7517) > Nehoa Street (Route 7518) | County | 0.000 | 2.059 | 6 | | Urban | | | | | | 2.059 |
| 7548 | Cooke Street : Ala Moana Boulevard (Route 92) > King Street (Route 7402) | County | 0.000 | 0.660 | 6 | | Urban | | | | | | 0.660 |
| 7549 | Young Street : Pensacola Street (Route 7512) > Isenberg Street (Route 7643) | County | 0.000 | 1.400 | 5 | | Urban | | | | | 1.400 | |
| 7550 | Keeaumoku Street : Wilder Avenue (Route 7525) > Nehoa Street (Route 7518) | County | 0.000 | 0.300 | 6 | | Urban | | | | | | 0.300 |
| 7552 | Kamakee Street : Ala Moana Boulevard (Route 92) > Kapiolani Boulevard (Route 7503) | County | 0.000 | 0.340 | 5 | | Urban | | | | | 0.340 | |
| 7553 | Booth Road : Kekuanoni Street (Route 7546) > 2000 feet past Kekuanoni Street | County | 0.000 | 0.380 | 6 | | Urban | | | | | | 0.380 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7601 | Old Waialae Road/King Street : Kapiolani Boulevard (Route 7503) > End of divided roadway | State | 0.000 | 0.410 | 3 | Yes | Urban | | | 0.410 | | | |
| 7610 | Date Street : University Avenue (Route 7615) > Kapahulu Avenue (Route 7810) | County | 0.000 | 0.960 | 4 | | Urban | | | | 0.960 | | |
| 7611 | St Louis Drive/Dole Street : Waialae Avenue (Route 7801) > Wilder Avenue (Route 7525) | County | 0.000 | 1.340 | 4 | | Urban | | | | 1.340 | | |
| 7612 | Kalakaua Avenue : Beretania Street (Route 7502) > Paki Avenue (Route 7713) | County | 0.000 | 3.080 | 4 | | Urban | | | | 3.080 | | |
| 7613 | McCully Street : Kalakaua Avenue (Route 7612) > Metcalf Street (Route 7613) | County | 0.000 | 0.880 | 4 | | Urban | | | | 0.880 | | |
| 7613 | Metcalf Street : McCully Street > University Avenue (Route 7646) | County | 0.880 | 1.370 | 5 | | Urban | | | | | 0.490 | |
| 7614 | Philip Street/Punahou Street : Kalakaua Avenue (Route 7612) > King Street (Route 7402) | County | 0.000 | 0.170 | 5 | | Urban | | | | | 0.170 | |
| 7614 | Punahou Street : King Street (Route 7402) > Wilder Avenue (Route 7525) | County | 0.170 | 0.640 | 3 | Yes | Urban | | | 0.470 | | | |
| 7614 | Punahou Street : Wilder Avenue (Route 7525) > Nehoa Street (Route 7518) | County | 0.640 | 0.856 | 4 | | Urban | | | | 0.216 | | |
| 7615 | University Avenue : Kapiolani Boulevard (Route 7503) > King Street (Route 7402) | County | 0.000 | 0.400 | 4 | | Urban | | | | 0.40 | | |
| 7615 | University Avenue : King Street (Route 7402) > Metcalf Street (Route 7613) | County | 0.400 | 0.900 | 3 | Yes | Urban | | | 0.50 | | | |
| 7641 | Date Street/Citron Street/Kuikahi Street/Philip Street : University Avenue (Route 7615) > Punahou Street (Route 7614) | County | 0.000 | 0.910 | 5 | | Urban | | | | | 0.910 | |
| 7642 | East Manoa Road : Manoa Road (Route 7645) > Alani Drive | County | 0.000 | 1.810 | 5 | | Urban | | | | | 1.810 | |
| 7642 | Alani Drive : East Manoa Road (Route 7642) > Woodlawn Drive (N Junction) | County | 1.810 | 2.060 | 6 | | Urban | | | | | | 0.250 |
| 7643 | Isenberg Street : Kapiolani Boulevard (Route 7503) > Beretania Street (Route 7502) | County | 0.000 | 0.520 | 5 | | Urban | | | | | 0.520 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7644 | Lowrey Avenue : Manoa Road (Route 7645) > East Manoa Road (Route 7642) | County | 0.000 | 0.390 | 6 | | Urban | | | | | | 0.390 |
| 7645 | Manoa Road : Nehoa Street (Route 7518) > Waakaua Street | County | 0.000 | 2.450 | 5 | | Urban | | | | | 2.450 | |
| 7646 | University Avenue : Metcalf Street (Route 7613) > Oahu Avenue | County | 0.000 | 0.650 | 4 | | Urban | | | | 0.650 | | |
| 7646 | Oahu Avenue : University Avenue (Route 7646) > Manoa Road (route 7645) | County | 0.650 | 1.290 | 5 | | Urban | | | | | 0.640 | |
| 7647 | St Louis Drive/Bertram Street/St Louis Drive/Bertram Street/St Louis Drive/Noah Street/St Louis Drive/Alencastre Street : Dole Street (Route 7611) > St Louis Drive | County | 0.000 | 2.105 | 5 | | Urban | | | | | 2.105 | |
| 7648 | Alexander Street : Wilder Avenue (Route 7525) > H-1 | County | 0.000 | 0.160 | 6 | | Urban | | | | | | 0.160 |
| 7649 | Dole Street : Punahou Street (Route 7614) > Metcalf Street (Route 7613) | County | 0.000 | 0.380 | 5 | | Urban | | | | | 0.380 | |
| 7710 | Ala Wai Boulevard : Kapahulu Avenue (Route 7810) > Kalakaua Avenue (Route 7612) | County | 0.000 | 1.570 | 4 | | Urban | | | | 1.570 | | |
| 7711 | Kuhio Avenue : Kalakaua Avenue (Route 7612) > Kapahulu Avenue (Route 7810) | County | 0.000 | 1.170 | 5 | | Urban | | | | | 1.170 | |
| 7712 | Monsarrat Avenue : Kalakaua Avenue (Route 7612) > Paki Avenue (Route 7713) | County | 0.000 | 0.470 | 5 | | Urban | | | | | 0.470 | |
| 7712 | Monsarrat Avenue : Paki Avenue (Route 7713) > Trousseau Street | County | 0.470 | 0.990 | 4 | | Urban | | | | 0.520 | | |
| 7713 | Paki Avenue : Diamond Head Road (Route 7811) > Monsarrat Avenue (Route 7712) | County | 0.000 | 0.660 | 5 | | Urban | | | | | 0.660 | |
| 7713 | Paki Avenue : Monsarrat Avenue (Route 7712) > Kapahulu Avenue (Route 7810) | County | 0.660 | 0.950 | 4 | | Urban | | | | 0.290 | | |
| 7714 | Niu Street : Ala Wai Boulevard (Route 7710) > Kalakaua Avenue (Route 7612) | County | 0.000 | 0.100 | 6 | | Urban | | | | | | 0.100 |
| 7715 | Pau Street : Kalakaua Avenue (Route 7612) > Ala Wai Boulevard (Route 7710) | County | 0.000 | 0.110 | 6 | | Urban | | | | | | 0.110 |
| 7720 | Saratoga Road : Kalia Road (Route 7743) > Kalakaua Avenue (Route 7612) | County | 0.000 | 0.240 | 6 | | Urban | | | | | | 0.240 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7725 | Kalaimoku Street : Kalakaua Avenue (Route 7612) > Ala Wai Boulevard (Route 7710) | County | 0.000 | 0.200 | 6 | | Urban | | | | | | 0.200 |
| 7741 | Kaiulani Street/ Kanekapolei Street : Kalakaua Avenue (Route 7612) > Ala Wai Boulevard (Route 7710) | County | 0.000 | 0.370 | 6 | | Urban | | | | | | 0.370 |
| 7743 | Kalia Road : Ala Moana Boulevard (Route 92) > Lewers Street (Route 7744) | County | 0.000 | 0.560 | 5 | | Urban | | | | | 0.560 | |
| 7744 | Lewers Street : Kalia Road (Route 7743) > Ala Wai Boulevard (Route 7710) | County | 0.000 | 0.420 | 6 | | Urban | | | | | | 0.420 |
| 7801 | Waialae Avenue : Kapahulu Avenue (Route 7810) > Palolo Avenue (Route 7849) | County | 0.000 | 0.420 | 3 | Yes | Urban | | | 0.420 | | | |
| 7801 | Waialae Avenue : Palolo Avenue (Route 7849) > Off ramp from H-1 | County | 0.420 | 1.560 | 4 | | Urban | | | | 1.140 | | |
| 7801 | Waialae Avenue: Off ramp from H-1 > Kilauea Avenue (Route 7812) | State | 1.560 | 2.020 | 4 | | Urban | | | | 0.460 | | |
| 7810 | Kapahulu Avenue : Kalakaua Avenue (Route 7612) > Waialae Avenue (Route 7801) | County | 0.000 | 1.560 | 4 | | Urban | | | | 1.560 | | |
| 7811 | Diamond Head Road : Trousseau Street > Paki Avenue (7713) | County | 0.000 | 2.730 | 4 | | Urban | | | | 2.730 | | |
| 7812 | Kilauea Avenue : Waialae Avenue (Route 7801) > 6th Avenue (Route 7852) | County | 0.000 | 2.240 | 4 | | Urban | | | | 2.240 | | |
| 7813 | 6th Avenue : H-1 > Waialae Avenue (Route 7801) | County | 0.000 | 0.180 | 4 | | Urban | | | | 0.180 | | |
| 7814 | 18th Avenue : Harding Avenue (Route 7842) > Diamond Head Road (Route 7811) | County | 0.000 | 0.820 | 6 | | Urban | | | | | | 0.820 |
| 7841 | Campbell Avenue : Monsarrat Avenue (Route 7712) > Kapahulu Avenue (Route 7810) | County | 0.000 | 0.620 | 6 | | Urban | | | | | | 0.620 |
| 7842 | Harding Avenue : 21st Avenue (Route 7856) > Kapiolani Boulevard (Route 7503) | County | 0.000 | 1.780 | 5 | | Urban | | | | | 1.780 | |
| 7843 | Hunakai Street : Kilauea Avenue (Route 7862) > Kahala Avenue (Route 7844) | County | 0.000 | 1.500 | 6 | | Urban | | | | | | 1.500 |
| 7844 | Kahala Avenue : Diamond Head Road (Route 7811) > Kealaolu Avenue (Route 7863) | County | 0.000 | 1.500 | 6 | | Urban | | | | | | 1.500 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7845 | Kaimuki Avenue : Kapiolani Boulevard (Route 7503) > 6th Avenue (Route 7852) | County | 0.000 | 0.680 | 5 | | Urban | | | | | 0.680 | |
| 7846 | Koko Head Avenue : Waialae Avenue (Route 7801) > Pahoa Avenue (Route 7848) | County | 0.000 | 0.260 | 4 | | Urban | | | | 0.260 | | |
| 7847 | Mooheau Avenue : Kapahulu Avenue (Route 7810) > 6th Avenue (Route 7852) | County | 0.000 | 0.270 | 6 | | Urban | | | | | | 0.270 |
| 7848 | Pahoa Road : Koko Head Avenue (Route 7846) > Kilauea Avenue (Route 7812) | County | 0.000 | 1.000 | 5 | | Urban | | | | | 1.000 | |
| 7849 | Palolo Avenue : 10th Avenue (Route 7853) > Waialae Avenue (Route 7801) | County | 0.000 | 1.860 | 5 | | Urban | | | | | 1.86 | |
| 7850 | 5th Avenue : Waialae Avenue (Route 7801) > Harding Avenue (Route 7842) | County | 0.000 | 0.200 | 5 | | Urban | | | | | 0.200 | |
| 7851 | 6th Avenue : Waialae Avenue (Route 7801) > Palolo Avenue (Route 7849) | County | 0.000 | 0.170 | 5 | | Urban | | | | | 0.170 | |
| 7852 | 6th Avenue : H-1 > Alohea Avenue (Route 7864) | County | 0.000 | 0.500 | 5 | | Urban | | | | | 0.500 | |
| 7853 | 10th Avenue : Palolo Avenue (Route 7848) > Waialae Avenue (Route 7801) | County | 0.000 | 1.850 | 6 | | Urban | | | | | | 1.850 |
| 7854 | 10th Avenue : Kilauea Avenue (Route 7812) > Waialae Avenue (Route 7801) | County | 0.000 | 0.620 | 6 | | Urban | | | | | | 0.620 |
| 7855 | 11th Avenue : Waialae Avenue (Route 7801) > H-1 | County | 0.000 | 0.180 | 4 | | Urban | | | | 0.180 | | |
| 7856 | 21st Avenue : Harding Avenue (Route 7842) > Waialae Avenue (Route 7801) | County | 0.000 | 0.200 | 6 | | Urban | | | | | | 0.200 |
| 7857 | Sierra Drive : Waialae Avenue (Route 7801) > Maunalani Circle | County | 0.000 | 2.300 | 6 | | Urban | | | | | | 2.300 |
| 7858 | Lurline Drive/Monterey Drive/Paula Drive/Koko Drive/16th Avenue : Maunalani Circle > Kilauea Avenue (Route 7812) | County | 0.000 | 2.820 | 6 | | Urban | | | | | | 2.820 |
| 7859 | Elepaio Street : Kilauea Avenue (Route 7812) > Kahala Avenue (Route 7844) | County | 0.000 | 0.570 | 6 | | Urban | | | | | | 0.570 |
| 7862 | Kilauea Avenue : Akiaki Place > Waialae Avenue (Route 7801) | County | 0.000 | 0.690 | 6 | | Urban | | | | | | 0.690 |
| 7863 | Kealaolu Avenue : Waialae Avenue (Route 7801) > Kahala Avenue (Route 7844) | County | 0.000 | 0.700 | 5 | | Urban | | | | | 0.700 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7864 | Alohea Avenue : 6th Avenue (Route 7852) > Makapuu Avenue (Route 7865) | County | 0.000 | 0.610 | 5 | | Urban | | | | | 0.610 | |
| 7865 | Makapuu Avenue : Diamond Head Road (Route 7811) > Kilauea Avenue (Route 7812) | County | 0.000 | 0.320 | 5 | | Urban | | | | | 0.320 | |
| 7910 | Lunalilo Home Road : Kalanianaole Highway (Route 72) > Hawaii Kai Drive (Route 7911) | County | 0.000 | 1.710 | 4 | | Urban | | | | 1.710 | | |
| 7911 | Hawaii Kai Drive : Kalanianaole Highway (Route 72) > Wailua Street (Route 7951) | County | 0.000 | 1.700 | 4 | | Urban | | | | 1.700 | | |
| 7911 | Hawaii Kai Drive : Wailua Street (Route 7951) > Lunalilo Home Road (Route 7910) | County | 1.700 | 3.340 | 5 | | Urban | | | | | 1.640 | |
| 7911 | Hawaii Kai Drive : Lunalilo Home Road (Route7910) > Kealahou Street (Route 7949) | County | 3.340 | 4.540 | 4 | | Urban | | | | 1.200 | | |
| 7941 | Aina Koa Avenue/ Halekoa Drive : Kalanianaole Highway (Route 72) > Alaeloa Street | County | 0.000 | 1.700 | 6 | | Urban | | | | | | 1.700 |
| 7942 | West Hind Drive/East Hind Drive : Kalanianaole Highway (Route 72) > Kalanianaole Highway (Route 72) | County | 0.000 | 1.130 | 6 | | Urban | | | | | | 1.130 |
| 7943 | Nohu Street/Hao Street/Ani Street/Hind Uka Drive : West Hind Drive (Route 7942) > East Hind Drive (Route 7942) | County | 0.000 | 1.440 | 6 | | Urban | | | | | | 1.440 |
| 7944 | Halemaumau Street : Kalanianaole Highway (W junction) (Route 72) > Kalanianaole Highway (E Junction) (Route 72) | County | 0.000 | 0.830 | 6 | | Urban | | | | | | 0.830 |
| 7945 | Elelupe Road / Kuliouou Road : Kalanianaole Highway (Route 72) > Kalanianaole Highway (Route 72) | County | 0.000 | 0.850 | 6 | | Urban | | | | | | 0.850 |
| 7947 | Lunalilo Home Road/Nawiliwili Street : Kalanianaole Highway (Route 72) > Kalanianaole Highway (Route 72) | County | 0.000 | 0.860 | 6 | | Urban | | | | | | 0.860 |
| 7948 | Laukahi Street : Kalanianaole Highway (Route 72) > Kihi Street | County | 0.000 | 1.320 | 6 | | Urban | | | | | | 1.320 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 7949 | Kealahou Street : Kalanianaole Highway (Route 72) > Hawaii Kai Drive (Route 7911) | County | 0.000 | 0.700 | 4 | | Urban | | | | 0.700 | | |
| 7949 | Kealahou Street : Hawaii Kai Drive (Route 7911) > Ipuai Street | County | 0.700 | 1.600 | 5 | | Urban | | | | | 0.900 | |
| 7950 | Keahole Street : Kalanianaole Highway (Route 72) > Hawaii Kai Drive (Route 7911) | County | 0.000 | 0.690 | 4 | | Urban | | | | 0.690 | | |
| 7951 | Wailua Street : Hawaii Kai Drive (Route 7911) > Lunalilo Home Road (Route 7910) | County | 0.000 | 0.370 | 4 | | Urban | | | | 0.370 | | |
| 7952 | Hahaione Street : Hawaii Kai Drive (Route 7911) > Ainapo Street (Route 7954) | County | 0.000 | 0.830 | 6 | | Urban | | | | | | 0.830 |
| 7953 | Pepeekeo Street : Hawaii Kai Drive (Route 7911) > Hahaione Street (Route 7952) | County | 0.000 | 0.420 | 6 | | Urban | | | | | | 0.420 |
| 7954 | Ainapo Street : Pepeekeo Street (Route 7953) > Hahaione Street (Route 7952) | County | 0.000 | 0.630 | 6 | | Urban | | | | | | 0.630 |
| 8300 | Kamehameha Highway : Weed Junction > JP Leong Highway (Route 83) | County | 0.000 | 2.000 | 4 | | Urban | | | | 2.000 | | |
| 8541 | Old Goverment Road/Plantation Road : Farrington Highway (Route 93) > Waianae Valley Road (Route 8542) | County | 0.000 | 0.700 | 5 | | Urban | | | | | 0.700 | |
| 8542 | Waianae Valley Road : Farrington Highway (Route 93) > Haleahi Road | County | 0.000 | 2.520 | 5 | | Urban | | | | | 2.520 | |
| 8543 | Lualualei Homestead Road : Farrington Highway (Route 93) > Halona Road | County | 0.000 | 1.100 | 5 | | Urban | | | | | 1.100 | |
| 8741 | Hakimo Road : Farrington Highway (Route 93) > Paakea Road (Route 8755) | County | 0.000 | 1.470 | 5 | | Urban | | | | | 1.470 | |
| 8743 | Haleakala Avenue : Farrington Highway (Route 93) > Nanakuli Avenue (Route 8744) | County | 0.000 | 1.380 | 5 | | Urban | | | | | 1.380 | |
| 8744 | Nanakuli Avenue : Farrington Highway (Route 93) > Haleakala Avenue (Route 8743) | County | 0.000 | 1.340 | 5 | | Urban | | | | | 1.340 | |
| 8750 | Kaukama Road : Farrington Highway (Route 93) > Pakeke Street | County | 0.000 | 0.820 | 6 | | Urban | | | | | | 0.820 |
| 8755 | Mailiilii Road/Paakea Road : Farrington Highway (Route 93) > Hakimo Road (Route 8741) | County | 0.000 | 2.700 | 6 | | Urban | | | | | | 2.700 |
| 8755 | Mailiilii Road/Paakea Road : Hakimo Road (Route 8741) > Lualualei Naval Road | County | 2.700 | 3.028 | 6 | | Urban | | | | | | 0.328 |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 8760 | Makaha Valley Road : Farrington Highway (Route 93) > Lahaina Street | County | 0.000 | 0.100 | 5 | | Urban | | | | | 0.100 | |
| 8810 | Makakilo Drive : H-1 (Makakilo Interchange) > H-1 (Kualakai Parkway interchange) | County | 0.000 | 3.370 | 4 | | Urban | | | | 3.370 | | |
| 8815 | Palailai Street/Nohohale Street : Makakilo Drive (SE junction) > Makakilo Dr (NW junction) (Route 8810) | County | 0.000 | 1.210 | 6 | | Urban | | | | | | 1.210 |
| 8905 | Koio Drive : Aliinui Drive (Route 8910) > Farrington Highway (Route 93) | County | 0.000 | 0.490 | 6 | | Urban | | | | | | 0.490 |
| 8910 | Aliinui Drive : Farrington Highway (Route 93) > Koio Drive (Route 8905) | County | 0.000 | 1.690 | 5 | | Urban | | | | | 1.69 | |
| 8915 | Kamokila Boulevard : Farrington Highway (Route 9107) > Roosevelt Avenue (Route 8940) | County | 0.000 | 0.916 | 4 | | Urban | | | | 0.916 | | |
| 8918 | Wakea Street : Kapolei Parkway (Route 8920) > Kamokila Boulevard (Route 8915) | County | 0.000 | 0.477 | 6 | | Urban | | | | | | 0.477 |
| 8918 | Wakea Street : Kamokila Boulevard (Route 8915) > Farrington Highway (Route 93) | County | 0.477 | 0.593 | 4 | | Urban | | | | 0.116 | | |
| 8920 | Kapolei Parkway : Aliinui Drive (Route 8910) > Papipi Road | County | 0.000 | 7.770 | 4 | | Urban | | | | 7.770 | | |
| 8925 | Kealanani Avenue : Farrington Highway (Route 9107) > Kamaaha Loop | County | 0.000 | 0.580 | 5 | | Urban | | | | | 0.580 | |
| 8930 | Kualakai Parkway : H-1 > Kapolei Parkway (Route 8920) | State | 0.000 | 2.470 | 3 | Yes | Urban | | | 2.470 | | | |
| 8930 | Kualakai Parkway : Kapolei Parkway (Route 8920) > Roosevelt Avenue (Route 8940) | State | 2.470 | 2.870 | 4 | | Urban | | | | 0.400 | | |
| 8940 | Franklin D Roosevelt Avenue : Geiger Road (Route 7140) > Kamokila Boulevard (Route 8915) | State | 0.000 | 3.300 | 6 | | Urban | | | | | | 3.300 |
| 8945 | Enterprise Avenue : Franklin D Roosevelt Avenue (Route 8940) > Midway Street | State | 0.000 | 0.980 | 6 | | Urban | | | | | | 0.980 |
| 8955 | Coral Sea Road : Franklin D Roosevelt Avenue (Route 8940) > Barbers Point Air Station Gate | County | 0.000 | 2.690 | 6 | | Urban | | | | | | 2.690 |

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## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 9107 | Farrington Highway : West access to Old Fort Weaver Road > Kamokila Boulevard (Route 8915) | County | 0.000 | 4.070 | 4 | | Urban | | | | 4.070 | | |
| 9262 | Waialua Beach Road : Weed Junction > Crozier Loop | County | 0.000 | 2.530 | 5 | | Urban | | | | | 2.530 | |
| 9263 | Haleiwa Road : Kamehameha Highway (Route 8300) > Waialua Beach Road (Route 9262) | County | 0.000 | 1.600 | 5 | | Urban | | | | | 1.600 | |
| 9265 | Goodale Avenue : Waialua Beach Road (Route 9262) > Farrington Highway (Route 930) | County | 0.000 | 0.860 | 5 | | Urban | | | | | 0.860 | |
| 9270 | Puuiki Street : Farrington Highway (Route 930) > Kealohanui Street | County | 0.000 | 0.500 | 6 | | Urban | | | | | | 0.500 |
| 9274 | Paalaa Road : Kamehameha Highway (Route 8300) > Haleiwa Road (Route 9263) | County | 0.000 | 0.770 | 6 | | Urban | | | | | | 0.770 |
| 9275 | Kuoha Street : Waialua Beach Road (Route 9262) > Kukea Circle | County | 0.000 | 0.290 | 6 | | Urban | | | | | | 0.290 |
| 9276 | Komo Street : Waialua Beach Road (Route 9262) > Kaui Street | County | 0.000 | 0.190 | 6 | | Urban | | | | | | 0.190 |
| 9280 | Pupukea Road : Kamehameha Highway (Route 83) > Kanalani Place | County | 0.000 | 2.300 | 6 | | Urban | | | | | | 2.300 |
| 9285 | Pualalea Street : Kamehameha Highway (Route 83) > end of road | County | 0.000 | 0.310 | 5 | | Urban | | | | | 0.31 | |
| H-1 | H-1 : Farrington Highway (Route 93) > Ainakoa Avenue (Route 7941) | State | 0.000 | 27.160 | 1 | Yes | Urban | 27.160 | | | | | |
| H-2 | H-2 : Beginning of connection with H-1 > Wilikina Drive (Route 99) | State | 0.000 | 8.330 | 1 | Yes | Urban | 8.330 | | | | | |
| H-201 | H-201 : On ramp from H-1 (Halawa Interchange) > H-1 tunnel under King Street and Middle Street (Kahauki Interchange) | State | 0.000 | 4.090 | 1 | Yes | Urban | 4.090 | | | | | |
| H-3 | H-3 : H-1 > End of Urban Boundary near North Halawa Stream | State | 0.000 | 1.069 | 1 | Yes | Urban | 1.069 | | | | | |
| H-3 | H-3 : End of Urban Boundary near North Halawa Stream > Heeia Stream/Kaiwikee Stream, 0.3 miles east of the Tetsuno Harano Tunnels | State | 1.069 | 6.772 | 1 | Yes | Rural | 5.703 | | | | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## City and County of Honolulu Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| H-3 | H-3 : Heeia Stream/Kaiwikee Stream, 0.3 miles east of the Tetsuno Harano Tunnels > Kaneohe Marine Corps Base Hawaii main gate | State | 6.772 | 15.320 | 1 | Yes | Urban | 8.548 | | | | | |
| HI12P | Barbers Point Deep Draft Harbor : Malakole Street (Route 95) > end of route | Port | 0.000 | 0.200 | 3 | Yes | Urban | | | | | | |
| HI1A | Honolulu International Airport : Off ramp from H-1 > Terminal | Airport | 0.000 | 2.000 | 1 | Yes | Urban | | | | | | |
| HI2P1 | Honolulu Harbor : Forrest Avenue/Ala Moana Boulevard (Route 92) > Pier 1 | Port | 0.000 | 0.200 | 3 | Yes | Urban | | | | | | |
| HI2P18 | Honolulu Harbor : Kukahi Street/Nimitz Highway (Route 92) > Pier 18 | Port | 0.000 | 0.100 | 3 | Yes | Urban | | | | | | |
| HI2P51 | Honolulu Harbor : Sand Island Access Road (Route 64) > Pier 51 | Port | 0.000 | 0.100 | 3 | Yes | Urban | | | | | | |
| HI2P52 | Honolulu Harbor : Pier 51 > Pier 52 | Port | 0.000 | 0.100 | 3 | Yes | Urban | | | | | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 30 | High Street/Honoapiilani Highway: Main Street (Route 32) > 0.6 mil west of Maalaea Bay Place (road near Malalowaiaole Gulch ) | State | 0.000 | 7.456 | 3 | Yes | Urban | | | 7.456 | | | |
| 30 | Honoapiilani Highway: 0.6 mil west of Maalaea Bay Place (road near Malalowaiaole Gulch ) > 0.4 miles south of Kai Hele Ku Street | State | 7.456 | 17.876 | 3 | Yes | Rural | | | 10.420 | | | |
| 30 | Honoapiilani Highway : 0.4 miles south of Kai Hele Ku Street > Front Street (Route 3010) | State | 17.876 | 19.900 | 3 | Yes | Urban | | | 2.024 | | | |
| 30 | Honoapiilani Highway : Front Street (Route 3010) > Napilihau Street (Route 3090) | State | 19.900 | 29.230 | 4 | | Urban | | | | 9.330 | | |
| 30 | Honoapiilani Highway : Napilihau Street (Route 3090) > Near Honokahua Stream | State | 29.230 | 30.697 | 5 | | Urban | | | | | 1.467 | |
| 30 | Honoapiilani Highway : Near Honokahua Stream > Lower Honoapiilani Road | State | 30.697 | 31.126 | 5 | | Rural | | | | | 0.429 | |
| 30 | Honoapiilani Highway/ Kahekili Highway : Lower Honoapiilani Road > 0.17 miles east of Plantation Estates Drive | State | 31.126 | 31.396 | 5 | | Urban | | | | | 0.270 | |
| 30 | Honoapiilani Highway/ Kahekili Highway : 0.17 miles east of Plantation Estates Drive > End of state route (0.35 mi east of Papanahoa Stream Bridge (bridge #009000300304184) | State | 31.396 | 41.840 | 5 | | Rural | | | | | 10.444 | |
| 31 | Piilani Highway : Mokulele Highway (Route 311) > 0.6 miles south of Wailea Ike Drive | State | 0.000 | 7.149 | 3 | Yes | Urban | | | 7.149 | | | |
| 32 | West Main Street/Kaahumanu Avenue : High Street (Route 30) > Hobron Avenue (Route 32A) | State | 0.000 | 2.848 | 3 | Yes | Urban | | | 2.848 | | | |
| 36 | Hana Highway : Kaahumanu Avenue (Route 32)> Haleakala Highway (Route 37) | State | 0.000 | 2.920 | 3 | Yes | Urban | | | 2.920 | | | |
| 36 | Hana Highway : Haleakala Highway (Route 37) > Spreckelsville Road | State | 2.920 | 4.350 | 4 | | Rural | | | | 1.430 | | |
| 36 | Hana Highway : Spreckelsville Road > Holomua Road | State | 4.350 | 8.350 | 4 | | Urban | | | | 4.000 | | |
| 36 | Hana Highway : Holomua Road > Start of Urban Boundary near Maliko Bay | State | 8.350 | 10.100 | | | Rural | | | | 1.750 | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 36 | Hana Highway : Start of Urban Boundary near Maliko Bay > Kaupakalua Road (Route 365) | State | 10.100 | 16.214 | | | Urban | | | | 6.114 | | |
| 37 | Haleakala Highway/Kula Highway : Hana Highway (Route 36) > Kalialinui Bridge (#009000370301383) | State | 0.000 | 9.400 | 3 | Yes | Urban | | | 9.400 | | | |
| 37 | Kula Highway : Kalialinui Bridge (#009000370301383) > Kekaulike Avenue (Route 377) | State | 9.400 | 14.250 | 4 | | Urban | | | | 4.850 | | |
| 37 | Kula Highway : Kekaulike Avenue (Route 377) > Near Kekaulike Avenue at the end of urban boundary | State | 14.250 | 14.260 | 5 | | Urban | | | | | 0.010 | |
| 37 | Kula Highway : Near Kekaulike Avenue at the end of urban boundary > Kealakapu Road | State | 14.260 | 18.820 | 5 | | Rural | | | | | 4.560 | |
| 37 | Kula Highway : Kealakapu Road > Old Makena Road | State | 18.820 | 21.344 | 5 | | Urban | | | | | 2.524 | |
| 303 | Puukolii Road : Honoapiilani Highway (Route 30) > Lahaina Bypass (Route 3000) | County | 0.000 | 0.800 | 5 | | Urban | | | | | 0.800 | |
| 310 | North Kihei Road : Honoapiilani Highway (Route 30) > Mokulele Highway (Route 311) | State | 0.000 | 3.600 | 4 | | Urban | | | | 3.600 | | |
| 311 | Puunene Avenue/Mokulele Highway : Kuihelani Highway (Route 380) > Piilani Highway (Route 31) | State | 0.000 | 6.410 | 3 | Yes | Urban | | | 6.410 | | | |
| 340 | Kahekili Highway : Waiehu Beach Road (Route 3400)> Waihee Bridge (#009003400500233) | State | 0.000 | 2.310 | 5 | | Urban | | | | | 2.310 | |
| 340 | Kahekili Highway : Waihee Bridge (#009003400500233) > Camp Maluhia entrance | State | 2.310 | 4.290 | 5 | | Rural | | | | | 1.980 | |
| 340 | Kahekili Highway : Camp Maluhia entrance > 0.35 miles east of Papanahoa Bridge (#009000300304184) | County | 4.290 | 13.770 | 6 | | Rural | | | | | | 9.480 |
| 360 | Hana Highway : Kaupakalua Road (Route 365) > Kapipi Gulch near Urban Boundary | State | 0.000 | 0.460 | 5 | | Urban | | | | | 0.460 | |
| 360 | Hana Highway/Keawa Place : Kapipi Gulch near Urban Boundary > Wharf at Hāna Bay | State | 0.460 | 34.930 | 5 | | Rural | | | | | 34.470 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 365 | Makawao Avenue : Old Haleakala Highway (Route 367) > Kokomo Road (Route 366) | County | 0.000 | 3.200 | 5 | | Urban | | | | | 3.200 | |
| 365 | Kaupakalua Road : Kokomo Road (Route 366) > Hana Highway (Route 36) | County | 3.200 | 8.560 | 6 | | Urban | | | | | | 5.360 |
| 366 | Haiku Road / Kokomo Road: Hana Highway (Route 36) > Makawao Avenue (Route 365) | County | 0.000 | 5.560 | 5 | | Urban | | | | | 5.560 | |
| 367 | Old Haleakala Highway : Haleakala Highway (Route 37) > Kula Highway (Route 37) | County | 0.000 | 1.860 | 5 | | Urban | | | | | 1.860 | |
| 371 | Haliimaile Road : Haleakala Highway (Route 37) > 0.32 miles north of Kailua Road | County | 0.000 | 1.020 | 6 | | Rural | | | | | | 1.020 |
| 371 | Haliimaile Road : 0.32 miles north of Kailua Road > Baldwin Avenue (Route 390) | County | 1.020 | 2.620 | 6 | | Urban | | | | | | 1.600 |
| 374 | Kihei-Upcounty Maui Highway : Piilani Highway (Route 31) > Kihei Urban Boundary | State | 0.000 | 2.870 | 4 | | Urban | | | | 2.870 | | |
| 374 | Kihei-Upcounty Maui Highway : Kihei Urban Boundary > Start of Urban Boundary near Kauhikoa Ditch | State | 2.870 | 8.400 | 4 | | Rural | | | | 5.530 | | |
| 374 | Kihei-Upcounty Maui Highway : Start of Urban Boundary near Kauhikoa Ditch> Haleakala Highway (Route 37)/Haliimaile Road (Route 371) | State | 8.400 | 9.800 | 4 | | Urban | | | | 1.400 | | |
| 377 | Haleakala Highway/Kekaulike Avenue : Kula Highway (Route 37) > Kula Highway (Route 37) | State | 0.000 | 9.170 | 5 | | Urban | | | | | 9.170 | |
| 378 | Haleakala Crater Road : Hakeakala Highway (Route 377) > Palena Place | State | 0.000 | 0.100 | 5 | | Urban | | | | | 0.100 | |
| 378 | Haleakala Crater Road : Palena Place > Haleakala National Park boundary (at the cattle guard near the "End State Hwy Sign") | State | 0.100 | 10.099 | 5 | | Rural | | | | | 9.999 | |
| 380 | Dairy Road : Haleakala Highway (Route 36A) > Puunene Avenue (Route 3500) | State | 0.000 | 0.960 | 5 | | Urban | | | | | 0.960 | |
| 380 | Kuihelani Highway : Puunene Avenue (Route 3500) > Honoapiilani Highway (Route 30) | State | 0.960 | 6.180 | 3 | Yes | Urban | | | 5.220 | | | |
| 390 | Baldwin Avenue : Hana Highway (Route 36) > End of urban boundary | County | 0.000 | 2.000 | 5 | | Urban | | | | | 2.000 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 390 | Baldwin Avenue : End of urban boundary > Haliimaile Road (Route 371) | County | 2.000 | 5.000 | 5 | | Rural | | | | | 3.000 | |
| 390 | Baldwin Avenue : Haliimaile Road (Route 371) > Makawao Avenue (Route 365) | County | 5.000 | 6.940 | 5 | | Urban | | | | | 1.940 | |
| 3000 | Lahaina Bypass : Honoapiilani Highway S junction (Route 30) > 0.25 miles north of Launiupoko Stream | State | 0.000 | 4.190 | 3 | Yes | Urban | | | 4.190 | | | |
| 3000 | Lahaina Bypass : 0.25 miles north of Launiupoko Stream > Honoapiilani Highway N junction (Route 30) | State | 4.190 | 8.950 | 3 | Yes | Rural | | | 4.760 | | | |
| 3010 | Front Street : Honoapiilani Highway N Junction (Route 30) > Shaw Street (Route 3050) | County | 0.000 | 1.970 | 5 | | Urban | | | | | 1.970 | |
| 3010 | Front Street : Shaw Street (Route 3050) > Honoapiilani Highway S Junction (Route 30) | County | 1.970 | 2.670 | 6 | | Urban | | | | | | 0.700 |
| 3015 | Wainee Street : Kenui Street (Route 3070) > Lahainaluna Road (Route 3040) | County | 0.000 | 0.460 | 6 | | Urban | | | | | | 0.460 |
| 3020 | Papalaua Street : Front Street (Route 3010) > Honoapiilani Highway (Route 30) | County | 0.000 | 0.230 | 5 | | Urban | | | | | 0.230 | |
| 3025 | Kaniau Road/Ainakea Street : Honoapiilani Highway (Route 30) > Kapunakea Street (Route 3060) | County | 0.000 | 0.920 | 6 | | Urban | | | | | | 0.920 |
| 3030 | Dickenson Street : Front Street (Route 3010) > Honoapiilani Highway (Route 30) | County | 0.000 | 0.270 | 6 | | Urban | | | | | | 0.270 |
| 3040 | Lahainaluna Road : Front Street (Route 3010) > Lahainaluna School entry | County | 0.000 | 1.630 | 5 | | Urban | | | | | 1.630 | |
| **3045** | Kuhua Street: Keawe Street (Route 3075) > Lahainaluna Road (Route 3040) | County | 0.000 | 0.551 | 6 | | Urban | | | | | | 0.551 |
| 3050 | Shaw Street : Front Street (Route 3010) > Honoapiilani Highway (Route 30) | County | 0.000 | 0.200 | 6 | | Urban | | | | | | 0.200 |
| 3060 | Kapunakea Street : Front Street (Route 3010) > Lahaina Bypass (Route 3000) | County | 0.000 | 0.630 | 5 | | Urban | | | | | 0.630 | |
| 3070 | Kenui Street : Front Street (Route 3010) > Honoapiilani Highway (Route 30) | County | 0.000 | 0.200 | 6 | | Urban | | | | | | 0.200 |
| 3075 | Keawe Street : Honopiilani Highway (Route 30) > Lahaina Bypass (Route 3000) | County | 0.000 | 0.900 | 5 | | Urban | | | | | 0.900 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 3080 | Lower Honoapiilani Road : Honoapiilani Highway (Route 30) > Napilihau Street (Route 3090) | County | 0.000 | 3.320 | 5 | | Urban | | | | | 3.320 | |
| 3090 | Napilihau Street : Lower Honoapiilani Road (Route 3080) > Honoapiilani Highway (Route 30) | County | 0.000 | 0.260 | 5 | | Urban | | | | | 0.260 | |
| 3100 | South Kihei Road : North Kihei Road (Route 310) > Okolani Drive (Route 3125) | County | 0.000 | 6.220 | 5 | | Urban | | | | | 6.220 | |
| 3115 | Kenolio Road : Uwapo Road > Hoopili Akau Street | County | 0.000 | 1.210 | 6 | | Urban | | | | | | 1.210 |
| 3115 | North-South Connector/Liloa Drive: Hoopili Akau Street > Keonekai Road | County | 1.210 | 4.910 | 5 | | Urban | | | | | 3.700 | |
| 3115 | North-South Connector/Ohina Street: Keonekai Road > Kilohana Road | County | 4.910 | 5.460 | 6 | | Urban | | | | | | 0.550 |
| 3120 | Kilohana Drive : Piilani Highway (Route 31) > South Kihei Road (Route 3100) | County | 0.000 | 0.700 | 6 | | Urban | | | | | | 0.700 |
| 3125 | Okolani Drive : Piilani Highway (Route 31) > South Kihei Road (Route 3100) | County | 0.000 | 0.850 | 6 | | Urban | | | | | | 0.850 |
| 3130 | Keonekai Road : Piilani Highway (Route 31) > South Kihei Road (Route 3100) | County | 0.000 | 0.600 | 6 | | Urban | | | | | | 0.600 |
| 3135 | Wailea Alanui Drive : Kilohana Drive (Route 3120) > Wailea Ike Drive (3137) | County | 0.000 | 1.340 | 5 | | Urban | | | | | 1.340 | |
| 3137 | Wailea Ike Drive : Piilani Highway (Route 31) > Wailea Alanui Drive (Route 3135) | County | 0.000 | 0.600 | 5 | | Urban | | | | | 0.600 | |
| 3138 | Alanui Ke Alii Drive: South Kihei Road (Route 3100) > Piilani Highway (Route 31) | County | 0.000 | 0.500 | 6 | | Urban | | | | | | 0.500 |
| 3140 | Kanani Road : Piilani Highway (Route 31) > South Kihei Road (Route 3100) | County | 0.000 | 0.500 | 6 | | Urban | | | | | | 0.500 |
| 3150 | Welakahao Road : South Kihei Road (Route 3100) > Piilani Highway (Route 31) | County | 0.000 | 0.580 | 6 | | Urban | | | | | | 0.580 |
| 3160 | Lipoa Street : Piilani Highway (Route 31) > South Kihei Road (Route 3100) | County | 0.000 | 0.600 | 6 | | Urban | | | | | | 0.600 |
| 3165 | Piikea Avenue: South Kihei Road (Route 3100) > Piilani Highway (Route 31) | County | 0.000 | 0.600 | 5 | | Urban | | | | | 0.600 | |
| 3170 | Waipuilani Road : Piilani Highway (Route 31) > South Kihei Road (Route 3100) | County | 0.000 | 0.600 | 6 | | Urban | | | | | | 0.600 |
| 3175 | Kulanihakoi Street : Piilani Highway (Route 31) > South Kihei Road (Route 3100) | County | 0.000 | 0.500 | 6 | | Urban | | | | | | 0.500 |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 3180 | Waiale Road: Wells Street (Route 3830) > Kuikahi Drive (Route 3210) | County | 0.000 | 1.100 | 5 | | Urban | | | | | 1.100 | |
| 3180 | Waiale Road: Kuikahi Drive (Route 3210) > Honoapiilani Highway (Route 30) | County | 1.100 | 3.720 | 6 | | Urban | | | | | | 2.620 |
| 3185 | E. Waiko Road : Honoapiilani (Route 30) > Waiale Road | County | 0.000 | 0.420 | 5 | | Urban | | | | | 0.420 | |
| 3185 | E. Waiko Road: Waiale Road > Kuihelani Highway | County | 0.420 | 1.304 | 5 | | Urban | | | | | 0.884 | |
| 3190 | Ohukai Road : Hoalike Street > South Kihei Road (Route 3100) | County | 0.000 | 0.970 | 6 | | Urban | | | | | | 0.970 |
| 3200 | West Main Street/Iao Valley Road : High Street (Route 30) > End of Urban Boundary | County | 0.000 | 2.200 | 6 | | Urban | | | | | | 2.200 |
| 3200 | West Main Street/Iao Valley Road : End of Urban Boundary > Iao Valley State Park | County | 2.200 | 2.700 | 6 | | Rural | | | | | | 0.500 |
| 3210 | Kuikahi Drive : South Alu Road > Waiale Road (Route 3180) | County | 0.000 | 1.160 | 6 | | Urban | | | | | | 1.160 |
| 3210 | Kuikahi Drive : Waiale Road (Route 3180) > Maui Lani Parkway (Route 3220) | County | 1.160 | 1.766 | 6 | | Urban | | | | | | 0.606 |
| **3220** | Maui Lani Parkway : Kuihelani Highway (Route 380) > Kaahumanu Avenue (Route 32) | County | 0.000 | 2.770 | 5 | | Urban | | | | | 2.770 | |
| 3231 | Mahalani Street : Kaahumanu Avenue (Route 32) > Maui Lani Parkway (Route 3220) | County | 0.000 | 0.600 | 5 | | Urban | | | | | 0.600 | |
| 3231 | Waiinu Road : Maui Lani Parkway (Route 3220) > Waiale Road (Route 3180) | County | 0.600 | 1.180 | 5 | | Urban | | | | | 0.580 | |
| 3400 | Kahului Beach Road/Waiehu Beach Road : Kaahumanu Avenue (Route 32) > Kahekili Highway (Route 3405) | State | 0.000 | 2.620 | 4 | | Urban | | | | 2.620 | | |
| 3405 | South Market Street/North Market Street : Wells Street (Route 3830) > Piihana Road | County | 0.000 | 0.540 | 5 | | Urban | | | | | 0.540 | |
| 3405 | Kahekili Highway : Piihana Road > Waiehu Beach Road (Route 3400) | County | 0.540 | 2.260 | 6 | | Urban | | | | | | 1.720 |
| 3410 | Wahinepio Avenue : Kahului Beach Road (Route 3400) > Papa Avenue (Route 3910) | County | 0.000 | 0.520 | 6 | | Urban | | | | | | 0.520 |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 3420 | Kanaloa Avenue : Kaahumanu Avenue (Route 32) > Kahului Beach Road (Route 3400) | County | 0.000 | 0.900 | 5 | | Urban | | | | | 0.900 | |
| **3430** | Imi Kala Street : Lower Main Street > Kahekili Highway (Route 3405) | County | 0.000 | 0.850 | 6 | | Urban | | | | | | 0.850 |
| 3500 | Puunene Avenue : Kaahumanu Avenue (Route 32) > Kuihelani Highway (Route 380) | State | 0.000 | 1.110 | 3 | Yes | Urban | | | 1.110 | | | |
| 3600 | Hansen Road: Mokulele Highway (Route 311) > Hana Highway (Route 36) | County | 0.000 | 2.000 | 6 | | Urban | | | | | | 2.000 |
| 3610 | Loha Street/Iolani Street : Old Haleakala Highway (Route 367) > End of Iolani Street | County | 0.000 | 1.610 | 6 | | Urban | | | | | | 1.610 |
| 3620 | Pukalani Street/Liholani Street : Old Haleakala Highway (Route 367) > Aina Lani Drive | County | 0.000 | 1.400 | 6 | | Urban | | | | | | 1.400 |
| 3630 | Makani Road : Old Haleakala Highway (Route 367) > Makawao Avenue (Route 365) | County | 0.000 | 2.000 | 6 | | Urban | | | | | | 2.000 |
| 3700 | Piilani Highway : Kula Highway (Route 37) > 0.02 miles south of Old Makena Road | County | 0.000 | 0.020 | 6 | | Urban | | | | | | 0.020 |
| 3700 | Piilani Highway : 0.02 miles south of Old Makena Road > Haleakala National Park boundary | County | 0.020 | 28.800 | 6 | | Rural | | | | | | 28.780 |
| 3700 | Piilani Highway/Hana Highway : Haleakala National Park boundary > Keawa Place (Route 360) | County | 28.800 | 38.590 | 5 | | Rural | | | | | 9.790 | |
| 3800 | Mayor Elmer F. Cravalho Way: Lanui Circle > Puunene Avenue (Route 3500) | State | 0.000 | 1.670 | 3 | Yes | Urban | | | 1.670 | | | |
| 3830 | Wells Street : South High Street (Route 30) > Waiale Road (Route 3830) | County | 0.000 | 0.440 | 6 | | Urban | | | | | | 0.440 |
| 3830 | Waiale Road/Lower Main Street : Wells Street (Route 3830) > Waiehu Beach Road (Route 3400) | County | 0.440 | 1.970 | 5 | | Urban | | | | | 1.530 | |
| 3840 | Mill Street : North Market Street (Route 3405) > East Main Street (Route 3830) | County | 0.000 | 0.650 | 6 | | Urban | | | | | | 0.650 |
| 3910 | Papa Avenue : Kaahumanu Avenue (Route 32) > Puunene Avenue (Route 3500) | County | 0.000 | 2.560 | 5 | | Urban | | | | | 2.560 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Maui Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 3920 | Wakea Avenue : Kaahumanu Avenue (Route 32) > Hana Highway (Route 36) | County | 0.000 | 1.650 | 5 | | Urban | | | | | 1.650 | |
| 3930 | Hina Avenue : Wakea Avenue (Route 3920) > Papa Avenue (Route 3910) | County | 0.000 | 0.800 | 6 | | Urban | | | | | | 0.800 |
| 3940 | Kamehameha Avenue : Hana Highway (Route 36) > Papa Avenue (Route 3910) | County | 0.000 | 1.750 | 6 | | Urban | | | | | | 1.750 |
| 3940 | Kamehameha Avenue : Papa Avenue (Route 3910) > Maui Lani Parkway (Route 3220) | County | 1.750 | 2.374 | 6 | | Urban | | | | | | 0.624 |
| 3945 | Alamaha Street : Kamehameha Avenue (Route 3940) > Dairy Road (Route 380) | County | 0.000 | 0.700 | 6 | | Urban | | | | | | 0.700 |
| 3950 | Lono Avenue : Kaahumanu Avenue (Route 32) > Papa Avenue (Route 3910) | County | 0.000 | 1.300 | 6 | | Urban | | | | | | 1.300 |
| 3960 | Onehee Avenue : Wakea Avenue > Papa Avenue (Route 3910) | County | 0.000 | 0.660 | 6 | | Urban | | | | | | 0.660 |
| 3970 | Kea Street : Wakea Avenue (Route 3920) > Papa Avenue (Route 3910) | County | 0.000 | 0.600 | 6 | | Urban | | | | | | 0.600 |
| 32A | Hobron Avenue : Hana Highway (Route 36) > Kahului Harbor gate | State | 0.000 | 0.410 | 3 | Yes | Urban | | | 0.410 | | | |
| 32B | Wharf Street : Kaahumanu Avenue (Route 32) > Harbors Division lot Pier 2 | State | 0.000 | 0.170 | 3 | Yes | Urban | | | 0.170 | | | |
| 36A | Haleakala Highway/Keolani Place : Hāna Highway (Route 36) > Kahului Airport Boundary | State | 0.000 | 0.500 | 4 | | Urban | | | | 0.500 | | |
| HI3A | Keolani Place : End of Route 36A > Terminal | Airport | 0.000 | 1.500 | 4 | Yes | Urban | | | | | | |
| HI4P | Kahului Harbor : Hobron Avenue (Route 32A) > Ala Luina Street | Port | 0.000 | 0.199 | 3 | Yes | Urban | | | | | | |

***BOLD*** *Route Numbers are newly assigned routes.*

# County of Maui Functional Classification Update

**MOLOKAI**

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 450 | Kamehameha V Highway : Ala Malama Avenue > End of pavement | State | 0.000 | 27.510 | 5 | | Rural | | | | | 27.510 | |
| 460 | Kaunakai Place / Maunaloa Highway : Beginning of State Route > End of State Route | State | 0.000 | 16.560 | 5 | | Rural | | | | | 16.560 | |
| 465 | Airport Loop : Maunaloa Highway (east junction) > Maunaloa Highway (west junction) | State | 0.000 | 2.130 | 5 | | Rural | | | | | 2.130 | |
| 470 | Kalae Highway : Maunaloa Highway (Route 460) > Kalaupapa lookout parking lot | State | 0.000 | 5.790 | 5 | | Rural | | | | | 5.790 | |
| 475 | Lihi Pali Avenue/Puukapele Avenue : Farrington Highway (Route 480) > end of county route | County | 0.000 | 4.060 | 6 | | Rural | | | | | | 4.060 |
| 480 | Farrington Avenue/Puupeelua Avenue : Kalae Highway > Maunaloa Highway (Route 460) | State | 0.000 | 3.660 | 5 | | Rural | | | | | 3.660 | |

**LANAI**

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 430 | Fraser Avenue : Kaumalapau Highway (Route 440) > Caldwell Avenue | County | 0.000 | 0.900 | 5 | | Rural | | | | | 0.900 | |
| 435 | Lanai Avenue : Kaumalapau Highway > End of County Route | County | 0.000 | 1.000 | 5 | | Rural | | | | | 1.000 | |
| 440 | Kaumalapau Highway/Manele Road : Kaumalapau Harbor > Manele Road (Route 440) | State | 0.000 | 13.180 | 5 | | Rural | | | | | 13.180 | |
| 441 | Airport Road : Airport terminal > Kaumalapau Highway (Route 440) | State | 0.000 | 0.470 | 5 | | Rural | | | | | 0.470 | |
| 442 | Kaumalapau Highway : Manele Road (Route 440) > Near Fraser Avenue (Route 430) | State | 0.000 | 0.030 | 5 | | Rural | | | | | 0.030 | |
| 442 | Kaumalapau Highway : Near Fraser Avenue (Route 430) > Lanai Avenue (Route 435) | County | 0.032 | 0.200 | 5 | | Rural | | | | | 0.168 | |

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 11 | Kanoelehua Avenue/Volcano Road : Kamehameha Avenue (Route 19) > Old Keaau-Pahoa Road (Route 139) | State | 0.000 | 7.300 | 3 | Yes | Urban | | | 7.300 | | | |
| 11 | Volcano Road/Mamalahoa Highway : Old Keaau-Pahoa Road (Route 139) > Kuaaina Road | State | 7.300 | 9.121 | 4 | | Urban | | | | 1.821 | | |
| 11 | Volcano Road/Mamalahoa Highway : Kuaaina Road > 0.01 miles past Capt. Cook Village Road | State | 9.121 | 109.220 | 4 | | Rural | | | | 100.099 | | |
| 11 | Mamalahoa Highway : 0.01 miles past Capt. Cook Village Road (end of state highway) > Alii Drive | County | 109.220 | 110.000 | 3 | Yes | Rural | | | 0.780 | | | |
| 11 | Mamalahoa Highway : Alii Drive > Old Mamalahoa Highway (Route 180) | County | 110.000 | 113.690 | 3 | Yes | Urban | | | 3.690 | | | |
| 11 | Kuakini Highway/Queen Kaahumanu Highway : Old Mamalahoa Highway (Route 180) > Palani Road (Route 190) | State | 113.690 | 121.970 | 3 | Yes | Urban | | | 8.280 | | | |
| 19 | Kuhio Street/Kalanianaole Street/Kamehameha Avenue : entrance to Kuhio Wharf > 0.14 miles north of Puu Moi Road (near Kalaoa Stream) | State | 0.000 | 7.830 | 3 | Yes | Urban | | | 7.830 | | | |
| 19 | Bay Front Highway/Hawaii Belt Road : 0.14 miles north of Puu Moi Road (near Kalaoa Stream) > 0.20 miles east of Old Mamalahoa Highway | State | 7.830 | 51.820 | 3 | Yes | Rural | | | 43.990 | | | |
| 19 | Hawaii Belt Road/Mamalahoa Highway/Lindsey Road/Kawaihae Road/Queen Kaahumanu Highway : 0.20 miles east of Old Mamalahoa Highway > Palani Road (Route 190) | State | 51.820 | 99.590 | 3 | Yes | Urban | | | 47.770 | | | |
| 121 | North Kulani Road : Volcano Road (Route 11) > Huina Road | County | 0.000 | 1.600 | 6 | | Rural | | | | | | 1.600 |
| 122 | Wright Road : Kilinoe Road > Volcano Road (Route 11) | County | 0.000 | 1.220 | 6 | | Rural | | | | | | 1.220 |
| 130 | Keaau-Pahoa Road : Volcano Road (Route 11) > Pahoa-Kapoho Road (Route 132) | State | 0.000 | 12.140 | 4 | | Urban | | | | 12.140 | | |
| 130 | Pahoa-Kalapana Road : Pahoa-Kapoho Road (Route 132) > End of Urban Boundary 0.23 north of Oi Road | State | 12.140 | 12.440 | 5 | | Urban | | | | | 0.300 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 130 | Pahoa-Kalapana Road : End of Urban Boundary 0.23 north of Oi Road > End of route | State | 12.440 | 21.639 | 5 | | Rural | | | | | 9.199 | |
| 132 | Pāhoa-Kapoho Road: Pāhoa-Keeau Road (Route 130) > .03 miles east of Nanawale Blvd | County | 0.000 | 0.930 | 5 | | Urban | | | | | 0.930 | |
| 132 | Pahoa-Kapoho Road : .03 miles east of Nanawale Blvd > Kalapana Kapoho Road | County | 0.930 | 7.730 | 5 | | Rural | | | | | 6.800 | |
| 134 | Pahoa Village Road : Keaau-Pahoa Road (Route 130) > Pahoa Kalapana-Road [through Pahoa town] (Route 130) | County | 0.000 | 1.490 | 5 | | Urban | | | | | 1.490 | |
| 135 | Pohoiki Road : Pahoa-Kapoho Road (Route 132) > Kalapana Road-Kapoho Road (Route 137) | County | 0.000 | 4.560 | 6 | | Rural | | | | | | 4.560 |
| 137 | Kapoho Kalapana Road : Pahoa-Kapoho Road (Route 132) > Pahoa-Kalapana Road (Route 130) | County | 0.000 | 15.060 | 6 | | Rural | | | | | | 15.060 |
| 138 | Kahakai Boulevard : Keeau-Pahoa Road (Route 130) > Papio Street | County | 0.000 | 5.900 | 5 | | Urban | | | | | 5.900 | |
| 139 | Old Keaau-Pahoa Road : Volcano Road (Route 11) > Keaau-Pahoa Road (Route 130) | State | 0.000 | 1.190 | 5 | | Urban | | | | | 1.190 | |
| 145 | Kamani Street : Pikake Street > Mamalahoa Highway (Route 11) | County | 0.000 | 0.500 | 6 | | Rural | | | | | | 0.500 |
| 155 | Kamaoa Road : South Point Access Road (Route 150) > Mamalahoa Highway (Route 11) | County | 0.000 | 3.980 | 6 | | Rural | | | | | | 3.980 |
| 160 | Ke Ala O Keawe Road : Mamalahoa Highway (Route 11) > End of route | State | 0.000 | 3.820 | 5 | | Rural | | | | | 3.820 | |
| 161 | Napoopoo Road : Puuhonua Road > Mamalahoa Highway (Route 11) | County | 0.000 | 4.400 | 5 | | Urban | | | | | 4.400 | |
| 163 | Ke Ala O Keawe Road (City of Refuge spur) : Ke Ala O Keawe Road > Parking lot entrance | State | 0.000 | 0.130 | 5 | | Rural | | | | | 0.130 | |
| 164 | Halekii Street : Mamao Street > Mamalahoa Highway (Route 11) | County | 0.000 | 0.260 | 5 | | Urban | | | | | 0.260 | |
| 180 | Haawina Street/Mamalahoa Highway : Kuakini Highway (Route 11) > Mamalahoa Highway (Route 190) | County | 0.000 | 9.140 | 4 | | Urban | | | | 9.140 | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 182 | Lako Street : Kuakini Highway (Route 11) > End of route (future connection to Alii Drive) | County | 0.000 | 0.490 | 6 | | Urban | | | | | | 0.490 |
| 184 | Sunset Drive : Marlin Road > Kuakini Highway (Route 11) | County | 0.000 | 0.320 | 6 | | Urban | | | | | | 0.320 |
| 185 | Kamehameha III Road : Kuakini Highway (Route 11) > Manukai Street | County | 0.000 | 1.760 | 5 | | Urban | | | | | 1.760 | |
| 186 | Palani Road/ Alii Drive: Kuakini Highway (Route 11) > Mamalahoa Bypass | County | 0.000 | 7.060 | 5 | | Urban | | | | | 7.060 | |
| 187 | Walua Road : Akoni Drive > Kuakini Highway (Route 11) | County | 0.000 | 0.600 | 6 | | Urban | | | | | | 0.600 |
| 188 | Hualalai Road : Alii Drive (Route 186) > Queen Kaahumanu Highway (Route 11) | County | 0.000 | 1.300 | 5 | | Urban | | | | | 1.300 | |
| 189 | Kaleiopapa Road : Ehukai Street > Alii Drive (Route 186) | County | 0.000 | 0.250 | 6 | | Urban | | | | | | 0.250 |
| 190 | Mamalahoa Highway : Lindsey Road (Route 19) > 0.20 miles after Lalamilo Road | County | 0.000 | 1.200 | 4 | | Urban | | | | 1.200 | | |
| 190 | Mamalahoa Highway : 0.20 miles after Lalamilo Road > 0.31 miles after Waimea-Kohala Airport Road | State | 1.200 | 2.020 | 4 | | Urban | | | | 0.820 | | |
| 190 | Mamalahoa Highway : 0.31 miles after Waimea-Kohala Airport Road > Makalei Golf Club | State | 2.020 | 31.310 | 4 | | Rural | | | | 29.290 | | |
| 190 | Mamalahoa Highway : Makalei Golf Club > 0.02 Miles after Mamalahoa Highway (Route 180) | State | 31.310 | 35.260 | 4 | | Urban | | | | 3.950 | | |
| 190 | Mamalahoa Highway : 0.02 miles after Mamalahoa Highway (Route 180) > 0.06 miles after Mamalahoa Highway (Route 180) | County | 35.260 | 35.300 | 4 | | Urban | | | | 0.040 | | |
| 190 | Palani Road : 0.06 miles after Mamalahoa Highway (Route 180) > Kuakini Highway (Route 1100) | County | 35.300 | 38.965 | 5 | | Urban | | | | | 3.665 | |
| 191 | Waikoloa Road : Mamalahoa Highway (Route 190) > 0.3 miles east of Paniolo Avenue | County | 0.000 | 6.050 | 4 | | Rural | | | | 6.050 | | |
| 191 | Waikoloa Road : 0.3 miles east of Paniolo Avenue > Queen Kaahumanu Highway (Route 19) | County | 6.050 | 11.930 | 4 | | Urban | | | | 5.880 | | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 192 | Hina Lani Street : Queen Kaahumanu Highway (Route 19) > Mamalahoa Highway (Route 190) | County | 0.000 | 3.600 | 5 | | Urban | | | | | 3.600 | |
| 196 | Paniolo Avenue : Waikoloa Road (Route 191) > Hooko Street | County | 0.000 | 1.640 | 5 | | Urban | | | | | 1.640 | |
| 197 | Kealakehe Parkway : Queen Kaahumanu Highway (Route 19) > Palani Road (Route 190) | State | 0.000 | 2.800 | 4 | | Urban | | | | 2.800 | | |
| 198 | Kaiminani Drive : Mamalahoa Highway (Route 190) > Queen Kaahumanu Highway (Route 19) | County | 0.000 | 3.620 | 5 | | Urban | | | | | 3.620 | |
| 200 | Saddle Road : Puainako Street > End of Urban Boundary near Flume Road | State | 0.000 | 2.170 | 4 | | Urban | | | | 2.170 | | |
| 200 | Saddle Road : End of Urban Boundary near Flume Road > End of State section | State | 2.170 | 35.360 | 4 | | Rural | | | | 33.190 | | |
| 200 | Daniel K. Inouye Highway : End of State section > Mamalohoa Highway (Route 190) | County | 35.360 | 45.620 | 4 | | Rural | | | | 10.260 | | |
| 200 | Saddle Road : Mamalahoa Highway (Route 190) > start of Urban Boundary | State | 45.620 | 50.920 | 4 | | Rural | | | | 5.300 | | |
| 200 | Saddle Road : Start of Urban Boundary > Queen Kaahumanu Highway (Route 19) | State | 50.920 | 54.000 | 4 | | Urban | | | | 3.080 | | |
| 210 | Mauna Kea Access Road : Saddle Road (Route 200) > Observatory | State | 0.000 | 14.860 | 6 | | Rural | | | | | | 14.860 |
| 220 | Honomu Road/Old Mamalahoa Highway/Akaka Falls Road: Hawaii Belt Road (Route 19) > Akaka Falls entrance | State | 0.000 | 3.770 | 6 | | Rural | | | | | | 3.770 |
| 222 | Old Mamalahoa Highway : Hawaii Belt Road (NW junction) (Route 19) > Hawaii Belt Road (SE junction) (Route 19) | County | 0.000 | 0.800 | 6 | | Rural | | | | | | 0.800 |
| 227 | Lehua Street/Plumeria Street : Mamane Street (Route 240) > Hawaii Belt Road (Route 19) | County | 0.000 | 0.660 | 5 | | Rural | | | | | 0.660 | |
| 228 | Pikake Street : Ohia Street > Hawaii Belt Road (Route 19) | County | 0.000 | 0.410 | 6 | | Rural | | | | | | 0.410 |
| 240 | Honokaa-Waipio Road/Mamane Street : Hawaii Belt Road (Route 19) > Lehua Street/Plumeria Street (Route 227) | State | 0.000 | 1.500 | 5 | | Rural | | | | | 1.500 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 240 | Honokaa-Waipio Road : Lehua Street/Plumeria Street (Route 227) > Waipio Valley lookout | State | 1.500 | 9.620 | 6 | | Rural | | | | | | 8.120 |
| 250 | Kohala Mountain Road : Kawaihae Road (Route 19) > Beginning of rural boundary | State | 0.000 | 1.770 | 5 | | Urban | | | | | 1.770 | |
| 250 | Kohala Mountain Road/Hawi Road : Beginning of rural boundary > Akoni Pule Highway (Route 270) | State | 1.770 | 19.280 | 5 | | Rural | | | | | 17.510 | |
| 270 | Kawaihae Road : Queen Kaahumanu Highway (Route 19) > Kawaihae Bridge (#001000270300326 ) | State | 0.000 | 1.360 | 3 | Yes | Urban | | | 1.360 | | | |
| 270 | Kawaihae Road : Kawaihae Bridge (#001000270300326 ) > Akoni Pule Highway/Fork to Kawaihae Harbor | State | 1.360 | 1.510 | 4 | | Urban | | | | 0.150 | | |
| 270 | Akoni Pule Highway : Akoni Pule Highway/Fork to Kawaihae Harbor > Niulii Bridge (#001002700502390) | State | 1.510 | 25.390 | 4 | | Rural | | | | 23.880 | | |
| 270 | Akoni Pule Highway : Niulii Bridge (#001002700502390) > Pololu Valley entrance | State | 25.390 | 27.020 | 5 | | Rural | | | | | 1.630 | |
| 272 | Kynnersley Road : Kohala Mountain Road (Route 250) > Akoni Pule Highway (Route 270) | County | 0.000 | 2.320 | 6 | | Rural | | | | | | 2.320 |
| 1100 | Kuakini Highway : Kaiwi Street (Route 1835) > Queen Kaahumanu Highway (Route 11) | County | 0.000 | 3.080 | 5 | | Urban | | | | | 3.080 | |
| 1110 | Alii Highway/Parkway : Alii Drive (Route 186) > Queen Kaahumanu Highway (Route 11) | County | 0.000 | 4.520 | 5 | | Urban | | | | | 4.520 | |
| 1370 | Kalanianaole Avenue : Kuhio Street > Pua Avenue | State | 0.000 | 0.480 | 3 | Yes | Urban | | | 0.480 | | | |
| 1370 | Kalanianaole Avenue : Pua Avenue > Leleiwi Street | County | 0.480 | 2.980 | 5 | | Urban | | | | | 2.500 | |
| 1810 | Nani Kailua Drive : Hienaloli Road > Queen Kaahumanu Highway (Route 11) | County | 0.000 | 0.830 | 6 | | Urban | | | | | | 0.830 |
| 1830 | Henry Street : Kuakini Highway (Route 1100) > Queen Kaahumanu Highway (Route 11) | County | 0.000 | 0.350 | 5 | | Urban | | | | | 0.350 | |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 1835 | Kaiwi Street : Queen Kaahumanu Highway (Route 19) > Kuakini Highway (Route 1100) | County | 0.000 | 0.520 | 5 | | Urban | | | | | 0.520 | |
| 1880 | Ane Keohokalole Highway : Palani Road (Route 190) > Kaiminani Drive (Route 198) | County | 0.000 | 5.650 | 5 | | Urban | | | | | 5.650 | |
| 1905 | Kealakaa Street : Uluaoa Street > Palani Road (Route 190) | County | 0.000 | 0.640 | 6 | | Urban | | | | | | 0.640 |
| 1910 | Kamehameha Avenue : Waianuenue Avenue (Route 1950) > Pauahi Street (Route 19) | County | 0.000 | 0.660 | 4 | | Urban | | | | 0.660 | | |
| 1920 | Kilauea Avenue : Ponahawai Street (Route 2730)> Kanoelehua Avenue (Route 11) | County | 0.000 | 4.080 | 4 | | Urban | | | | 4.080 | | |
| 1921 | Kilauea Avenue : Ponahawai Street (Route 2730) > Keawe Street | County | 0.000 | 0.070 | 4 | | Urban | | | | 0.070 | | |
| 1921 | Keawe Street : Kilauea Avenue (Route 1921) > Waianuenue Avenue (Route1950) | County | 0.070 | 0.350 | 6 | | Urban | | | | | | 0.280 |
| 1925 | Pauahi Street : Kamehameha Avenue (Route 19) > Kilauea Avenue (Route 1920) | County | 0.000 | 0.300 | 5 | | Urban | | | | | 0.300 | |
| 1930 | Kinoole Street : Wailuku Drive (Route 2860) > Haihai Street (Route 2740) | County | 0.000 | 3.910 | 4 | | Urban | | | | 3.910 | | |
| 1940 | Komohana Street : Waianuenue Avenue (Route 1950) > Ainaola Drive (Route 2750) | County | 0.000 | 3.000 | 5 | | Urban | | | | | 3.000 | |
| 1950 | Waianuenue Avenue/Kaumana Drive/Saddle Road : Kamehameha Avenue (Route 1910) > Hilo Urban Boundary (0.16 miles before Ua Nahele St) | County | 0.000 | 7.840 | 5 | | Urban | | | | | 7.840 | |
| 1950 | Kaumana Drive : Hilo Urban Boundary (0.16 miles before Ua Nahele St) > Saddle Road (Route 200) | County | 7.840 | 8.480 | 5 | | Rural | | | | | 0.640 | |
| 1960 | Railroad Avenue : Leilani Street > Kahaopea Street | County | 0.000 | 1.350 | 6 | | Urban | | | | | | 1.350 |
| 1970 | Kamehameha Avenue/Silva Street : Railroad Avenue > Kalanianaole Street (Route 19) | State | 0.000 | 0.930 | 6 | | Urban | | | | | | 0.930 |
| 2000 | Puainako Street : Railroad Avenue (Route 1960) > Komohana Street (Route 1940) | State | 0.000 | 2.180 | 5 | | Urban | | | | | 2.180 | |
| 2000 | Komohana Street/Puainako Street Extension: Puainako Street (Route 2000) > Kaumana Drive (Route 1950) | State | 2.180 | 6.870 | 6 | | Urban | | | | | | 4.690 |

***BOLD*** *Route Numbers are newly assigned routes.*

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 2460 | Kamamalu Street : Mamalahoa Highway (Route 19) > Hiiaka Street | County | 0.000 | 0.680 | 6 | | Urban | | | | | | 0.680 |
| 2470 | Lindsey Road : Hokuula Road > Kawaihae Road (Route 19) | County | 0.000 | 0.290 | 6 | | Urban | | | | | | 0.290 |
| 2710 | Stainback Highway : Hilo south Urban Boundary > Volcano Road (Route 11) | County | 0.000 | 1.490 | 6 | | Urban | | | | | | 1.490 |
| 2720 | Waianuenue Avenue : Kaumana Drive (Route 1950) > Akolea Road (Route 2850) | County | 0.000 | 2.110 | 5 | | Urban | | | | | 2.110 | |
| 2730 | Ponahawai Street : Komohana Street (Route 1940) > Kamehameha Avenue (Route 1910) | County | 0.000 | 1.110 | 6 | | Urban | | | | | | 1.110 |
| 2740 | Haihai Street : Kilauea Avenue (Route 1920) > Kupulau Road | County | 0.000 | 2.550 | 5 | | Urban | | | | | 2.550 | |
| 2750 | Ainaola Drive : Kawailani Street (Route 2760)> Kupulau Road | County | 0.000 | 2.150 | 5 | | Urban | | | | | 2.150 | |
| 2760 | Kawailani Street/Kupulau Place : Kanoelehua Avenue (Route 11) > Kupulau Road | County | 0.000 | 2.700 | 5 | | Urban | | | | | 2.700 | |
| 2760 | Kupulau Road: Kupulau Place (Route 2760) > Ainaola Drive (Route 2750) | County | 2.700 | 3.900 | 6 | | Urban | | | | | | 1.200 |
| 2770 | Iwalani Street : Haihai Street (Route 2740)> Puainako Street (Route 2000) | County | 0.000 | 1.400 | 6 | | Urban | | | | | | 1.400 |
| 2770 | Kawili Street/Manono Street : Puainako Street (Route 2000) > Kamehameha Avenue (Route 19) | County | 1.400 | 3.750 | 5 | | Urban | | | | | 2.350 | |
| 2790 | Mohouli Street : Kilauea Avenue (Route 1920) > Komohana Street (Route 1940) | County | 0.000 | 1.140 | 5 | | Urban | | | | | 1.140 | |
| 2810 | Kekuanaoa Street : Kanoelehua Avenue (Route 11) > Kilauea Avenue (Route 1920) | County | 0.000 | 0.810 | 5 | | Urban | | | | | 0.810 | |
| 2820 | Lanikaula Street/Kumukoa Street : Kanoelehua Avenue (Route 11) > Mohouli Street (Route 2790) | County | 0.000 | 1.810 | 5 | | Urban | | | | | 1.810 | |
| 2840 | Ainako Avenue/Lahi Street : Kaumana Drive (Route 1950) > Waianuenue Avenue (Route 2720) | County | 0.000 | 1.500 | 6 | | Urban | | | | | | 1.500 |
| 2850 | Akolea Road : Wainuenue Avenue (Route 2720) > Kaumana Drive (Route 1950) | County | 0.000 | 1.880 | 6 | | Urban | | | | | | 1.880 |

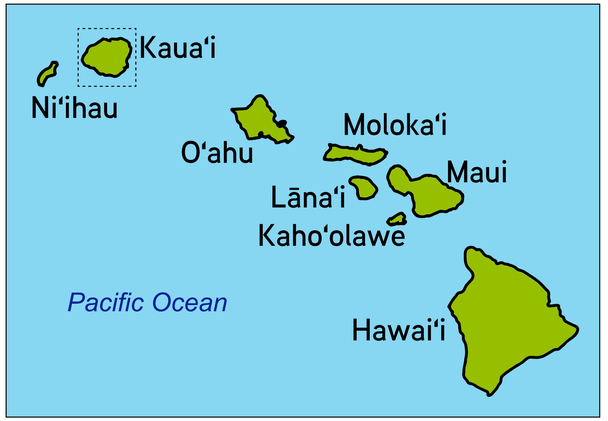
***BOLD*** *Route Numbers are newly assigned routes.*

## County of Hawaii Functional Classification Update

| Route | Roadway Name & Extent | Jurisdiction | Begin MP | End MP | HPMS Code | NHS | Rural/ Urban | 2024 Mileage by Functional Classification Changes | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Interstate | Freeway & Expressway | Arterial | | Collector | |
| | | | | | | | | | | Principal | Minor | Major | Minor |
| 2860 | Wainaku Avenue/Wailuku Drive : Mamalahoa Highway (Route 19) > Kinoole Street (Route 1930) | County | 0.000 | 1.800 | 5 | | Urban | | | | | 1.800 | |
| HI5A | Airport Road : Kanoelehua Avenue (Route 11) > Airport Road | Airport | 0.000 | 2.460 | 3 | Yes | Urban | | | | | | |
| HI6P | Kuhio Street : Kalanianaole Street (harbor gates) (Route 1370) > Pier 1 | Port | 0.000 | 0.100 | 3 | Yes | Urban | | | | | | |
| HI7P1 | Kawaihae Harbor : Kawaihae Road (Route 270) > End of Urban Boundary | Port | 0.000 | 0.050 | 4 | Yes | Urban | | | | | | |
| HI7P1 | Kawaihae Harbor : End of Urban Boundary > Pier 1 terminal | Port | 0.050 | 0.180 | 4 | Yes | Rural | | | | | | |
| HI8A | Keahole Airport Road/Kupipi Street : Queen Kaahumanu Hwy (Route 19) > Keahole Airport Road | Airport | 0.000 | 1.460 | 3 | Yes | Urban | | | | | | |
| TBD | Puna Makai Alternate Route : Railroad Avenue > 11th Avenue | County | 0.000 | 5.250 | 5 | | Rural | | | | | 5.250 | |

***BOLD*** *Route Numbers are newly assigned routes.*

# Appendix J
# Federal-Aid Roadway Functional Classification Maps


# Federal-Aid Roadway Functional Classification County of Kaua'i

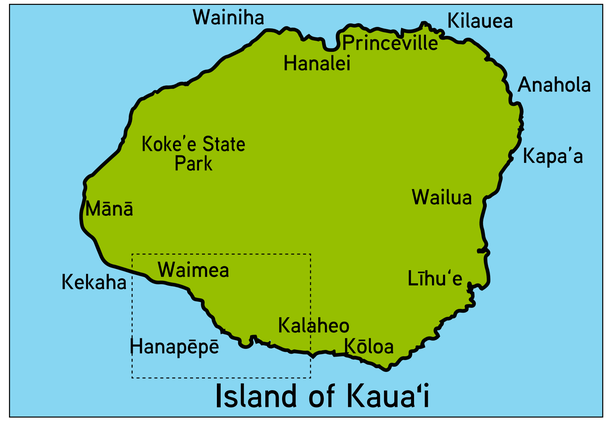
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification County of Kaua'i Inset 1: Kekaha-Waimea-Hanapēpē-Kalaheo

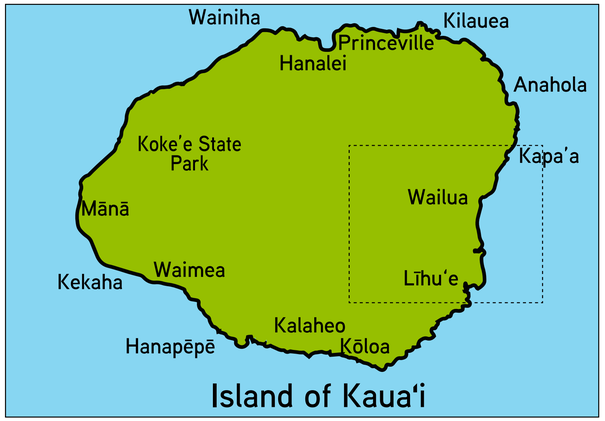
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector




# Federal-Aid Roadway Functional Classification County of Kaua'i Inset 2: Līhu'e-Wailua-Kapa'a

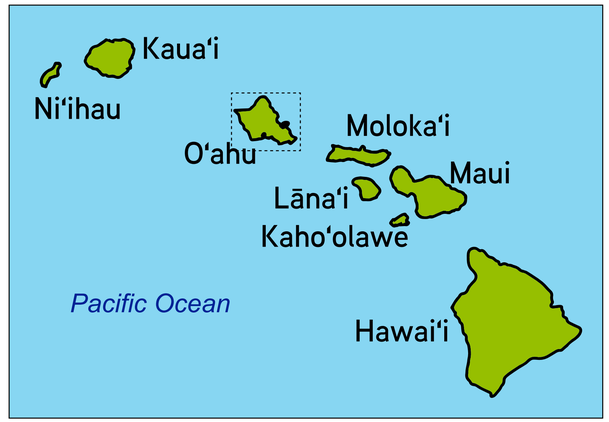
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification City and County of Honolulu

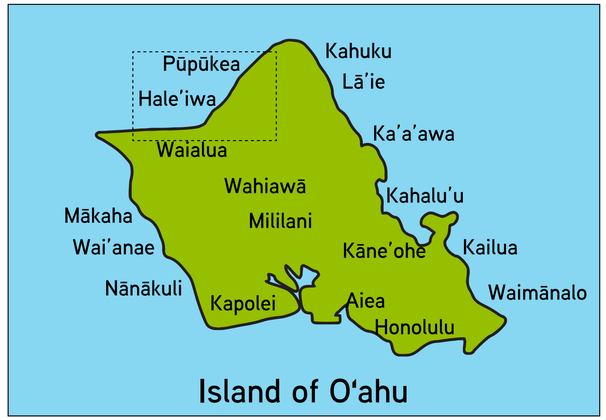
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification City and County of Honolulu Inset 1: Pūpūkea

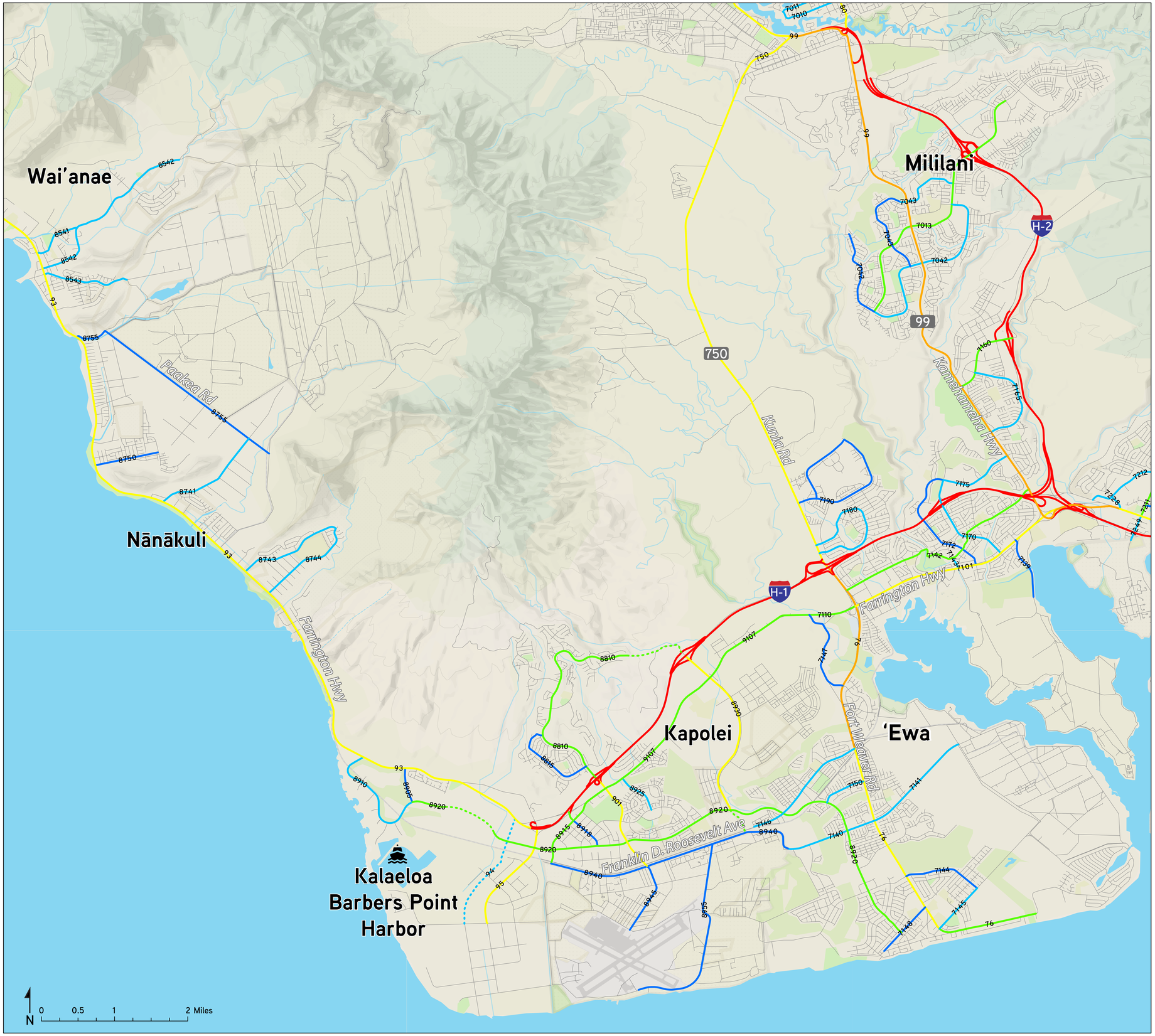
November 2024

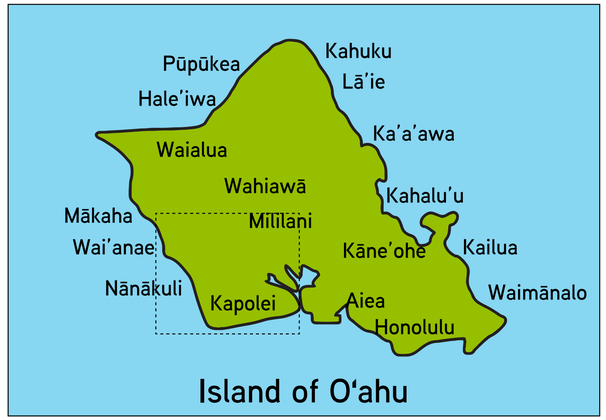
## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector




# Federal-Aid Roadway Functional Classification City and County of Honolulu Inset 2: Kapolei-'Ewa-Waipahu-Mililani

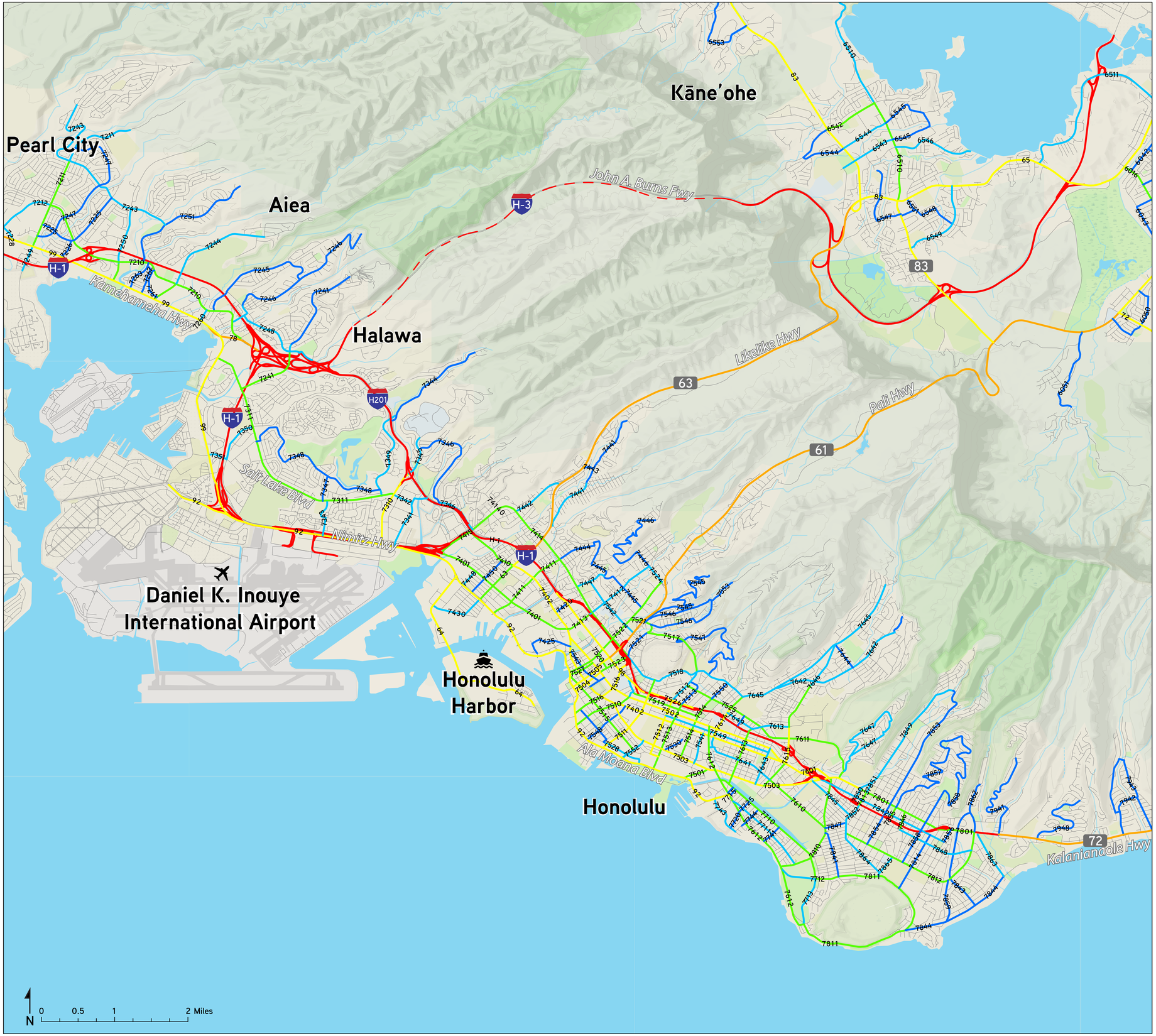
November 2024

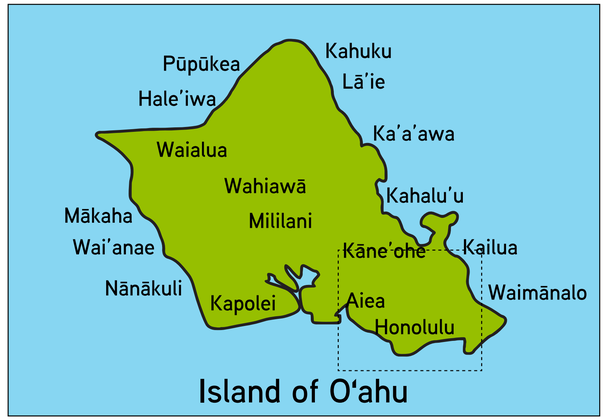
## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector




# Federal-Aid Roadway Functional Classification City and County of Honolulu Inset 3: Honolulu

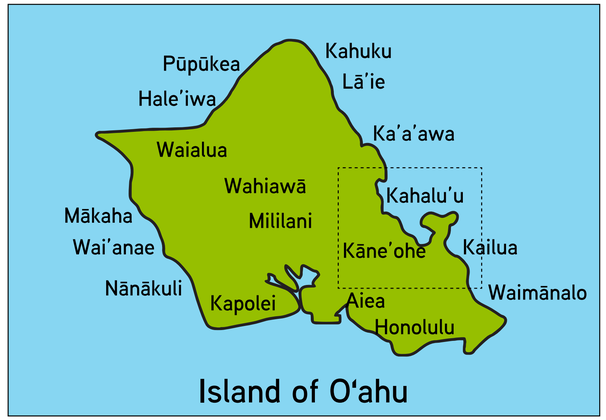
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification City and County of Honolulu Inset 4: Kahaluʻu-Kāneʻohe-Kailua

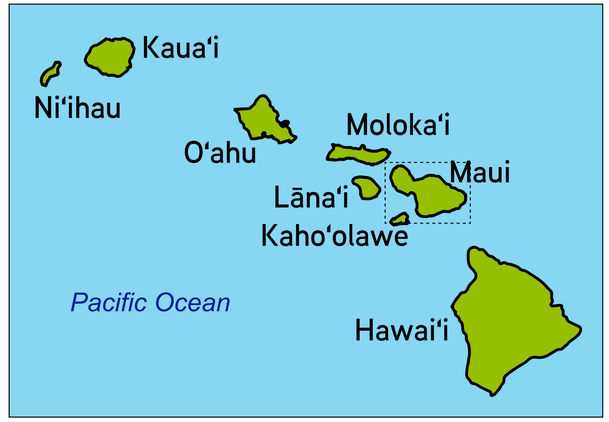
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification County of Maui

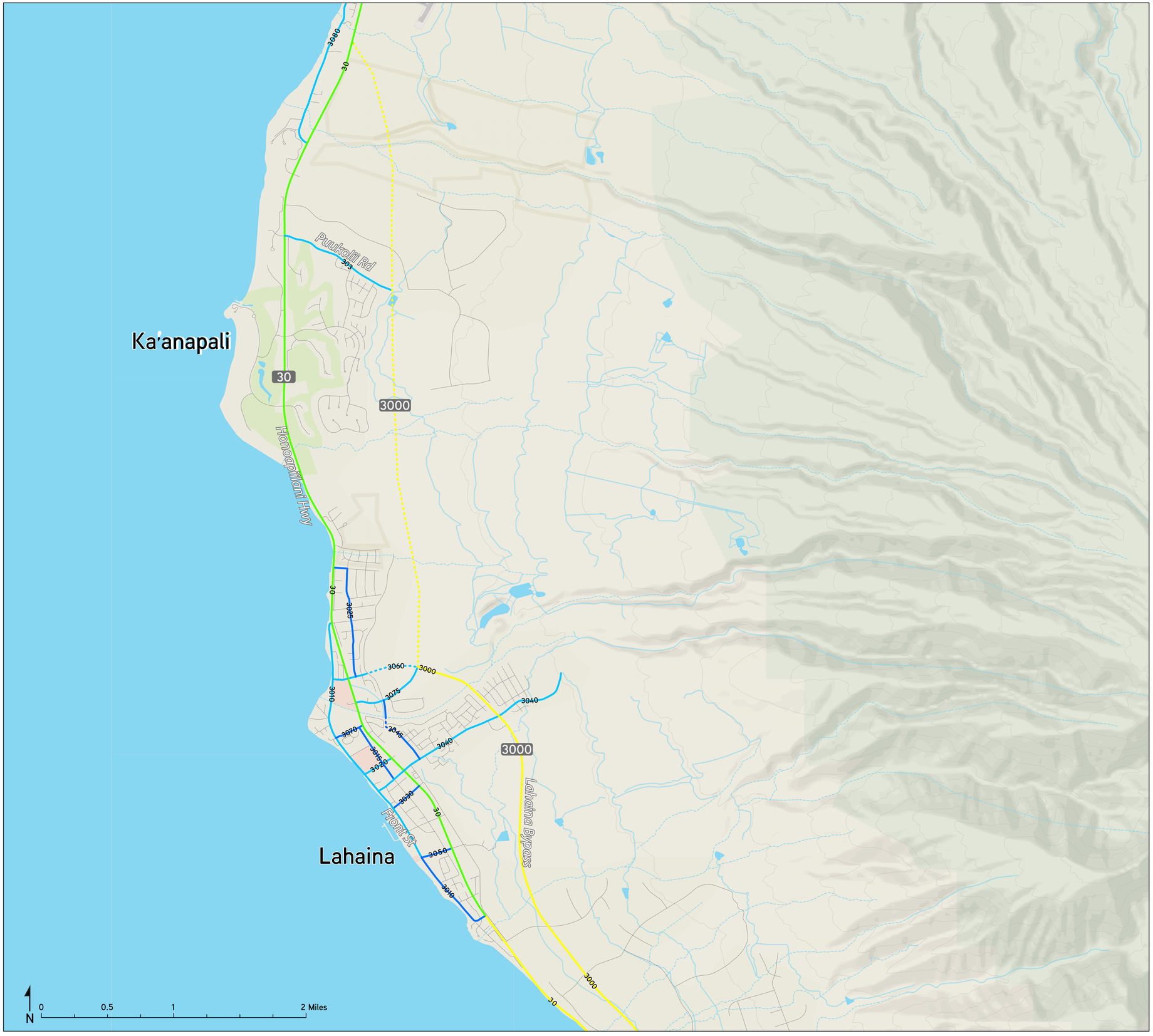
November 2024

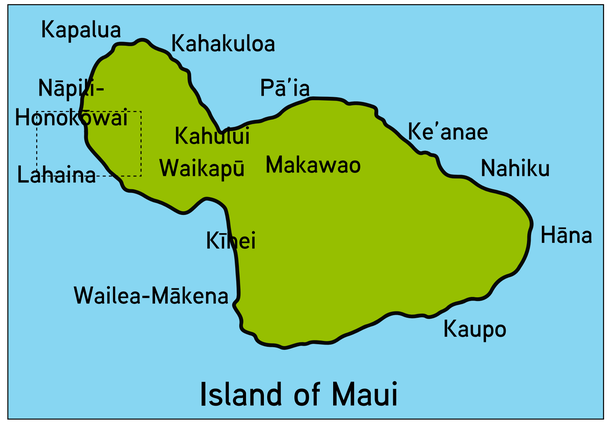
## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector




# Federal-Aid Roadway Functional Classification County of Maui Inset 1: Lahaina-Kaʻanapali

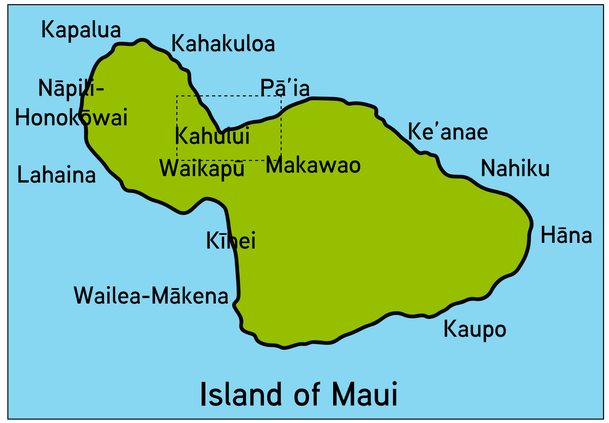
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification County of Maui Inset 2: Kahului-Wailuku

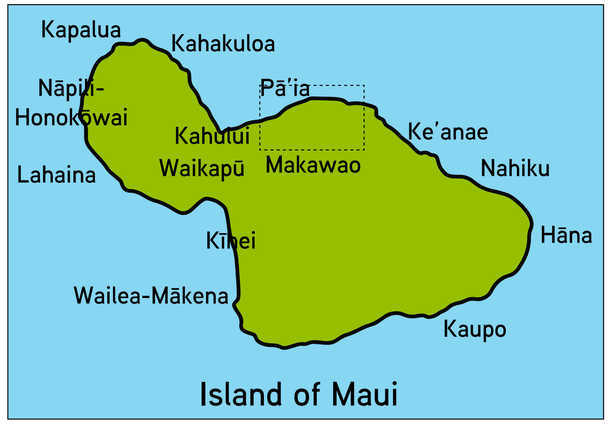
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification County of Maui Inset 3: Pā'ia-Haʻikū-Paʻuwela-Makawao

November 2024

## Legend

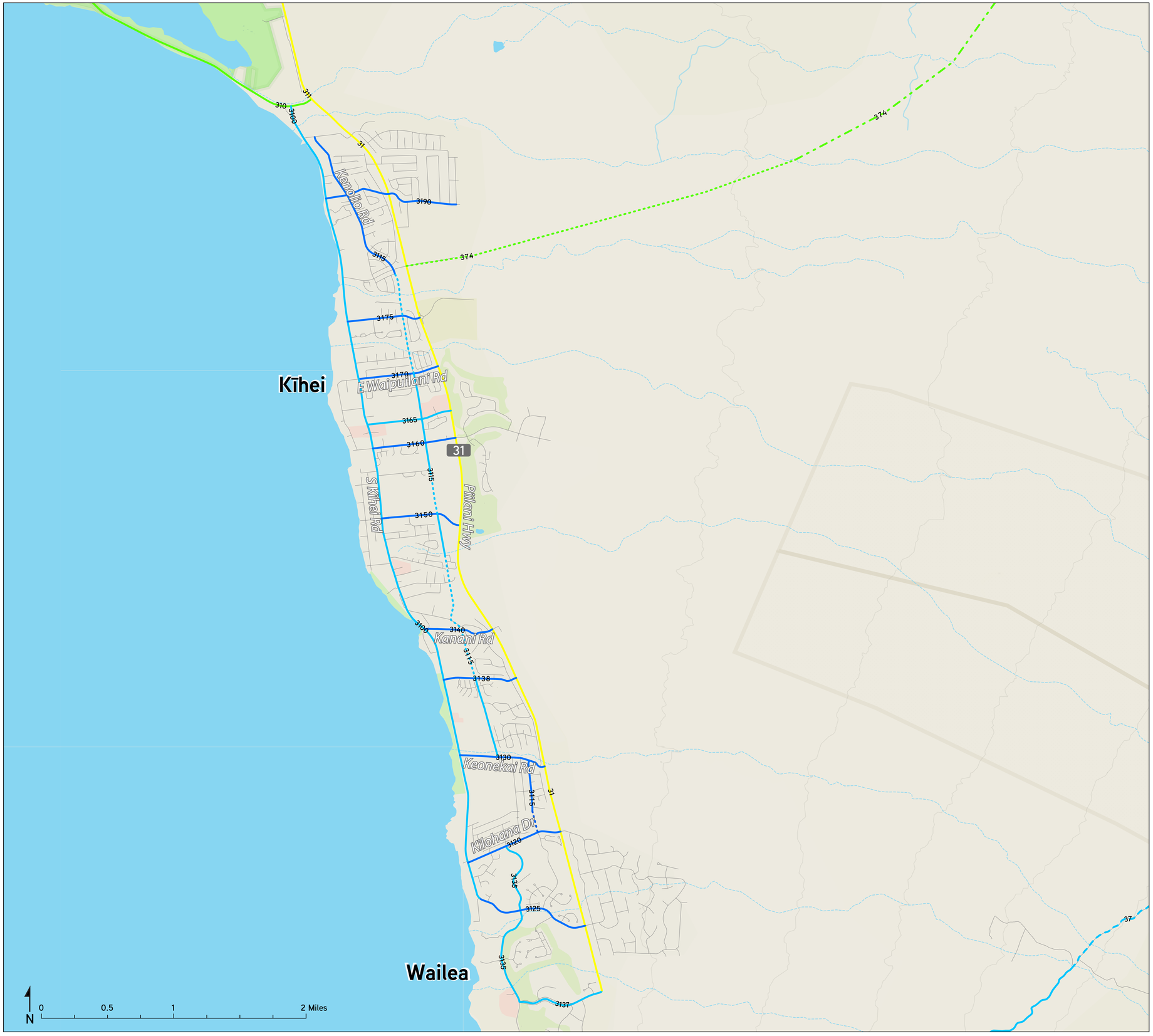
- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

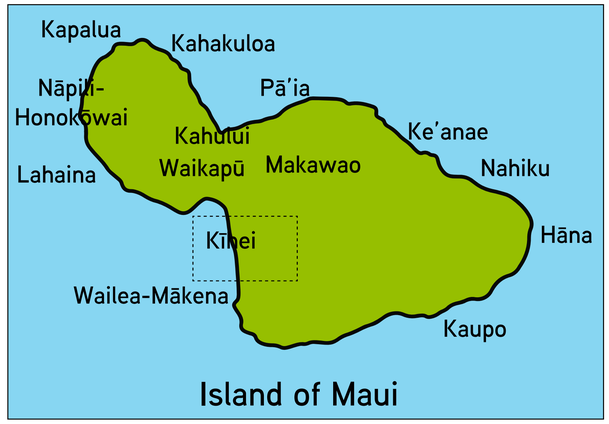
Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector

N

0 0.5 1 2 Miles




# Federal-Aid Roadway Functional Classification County of Maui Inset 4: Kīhei

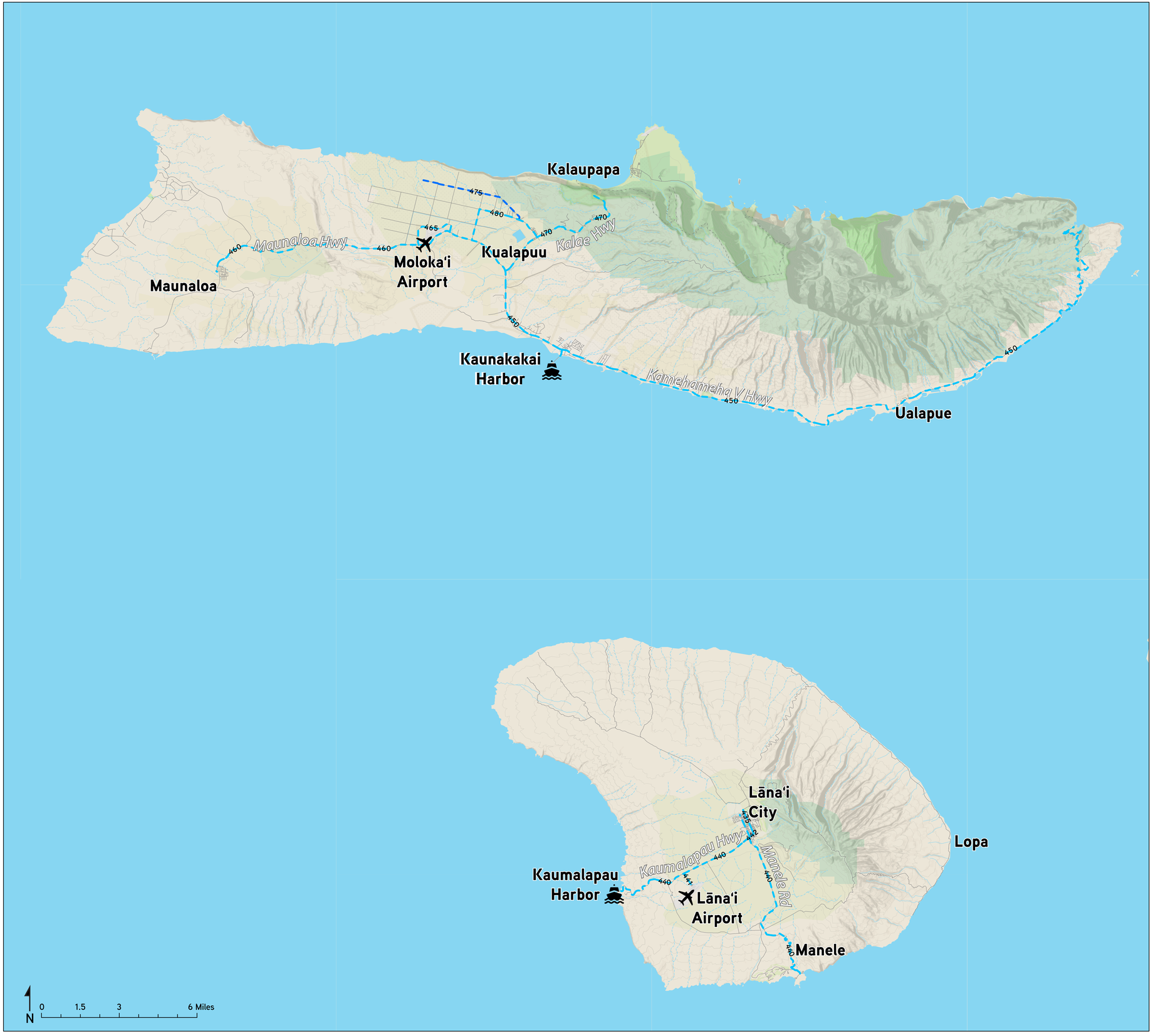
November 2024

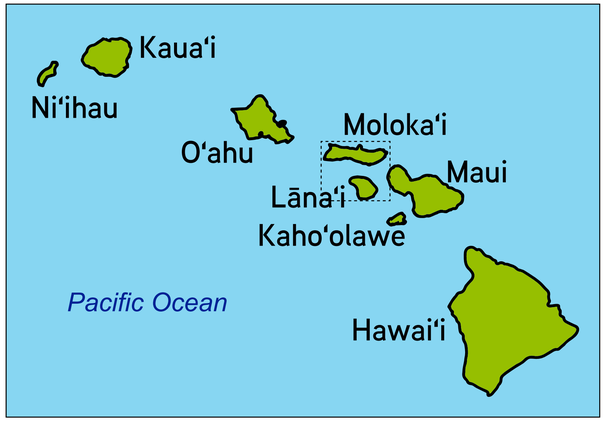
## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector




# Federal-Aid Roadway Functional Classification County of Maui - Lāna'i and Moloka'i

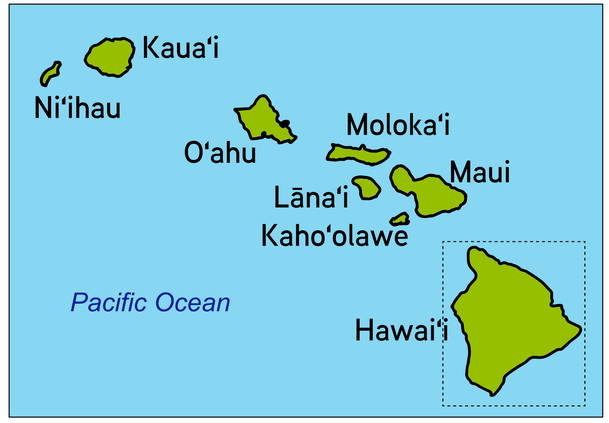
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification County of Hawai'i

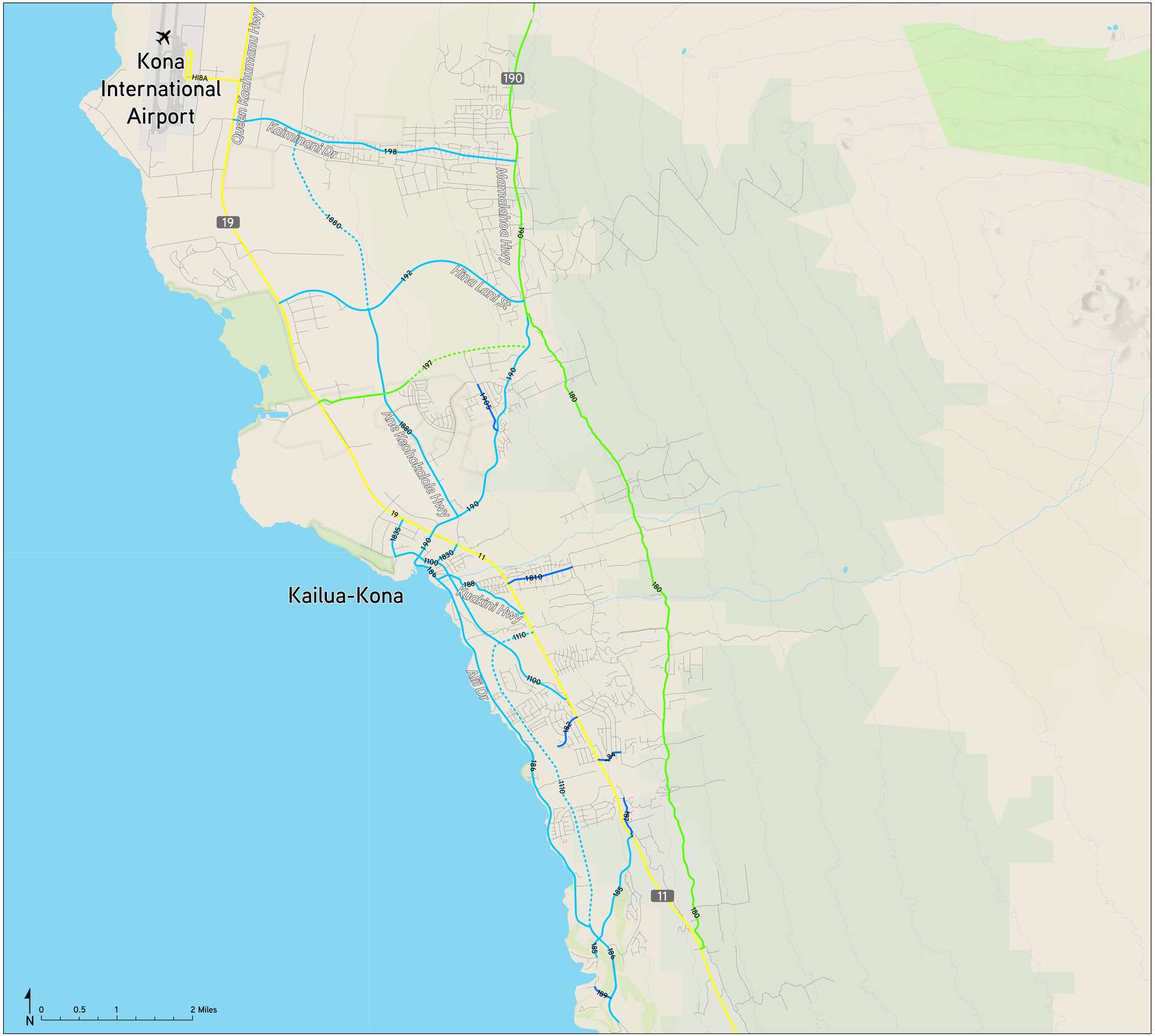
November 2024

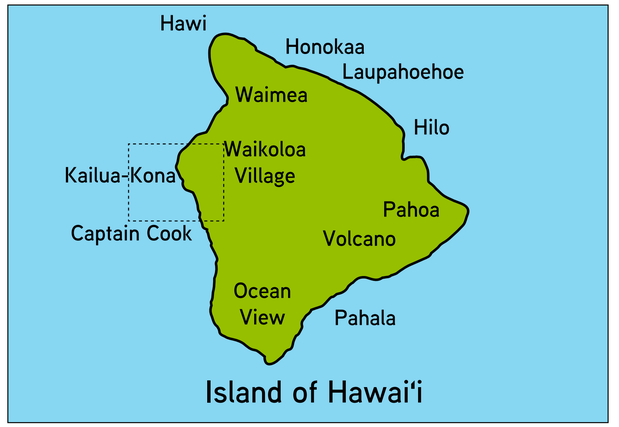
## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector




# Federal-Aid Roadway Functional Classification County of Hawai'i Inset 1: Kailua-Kona

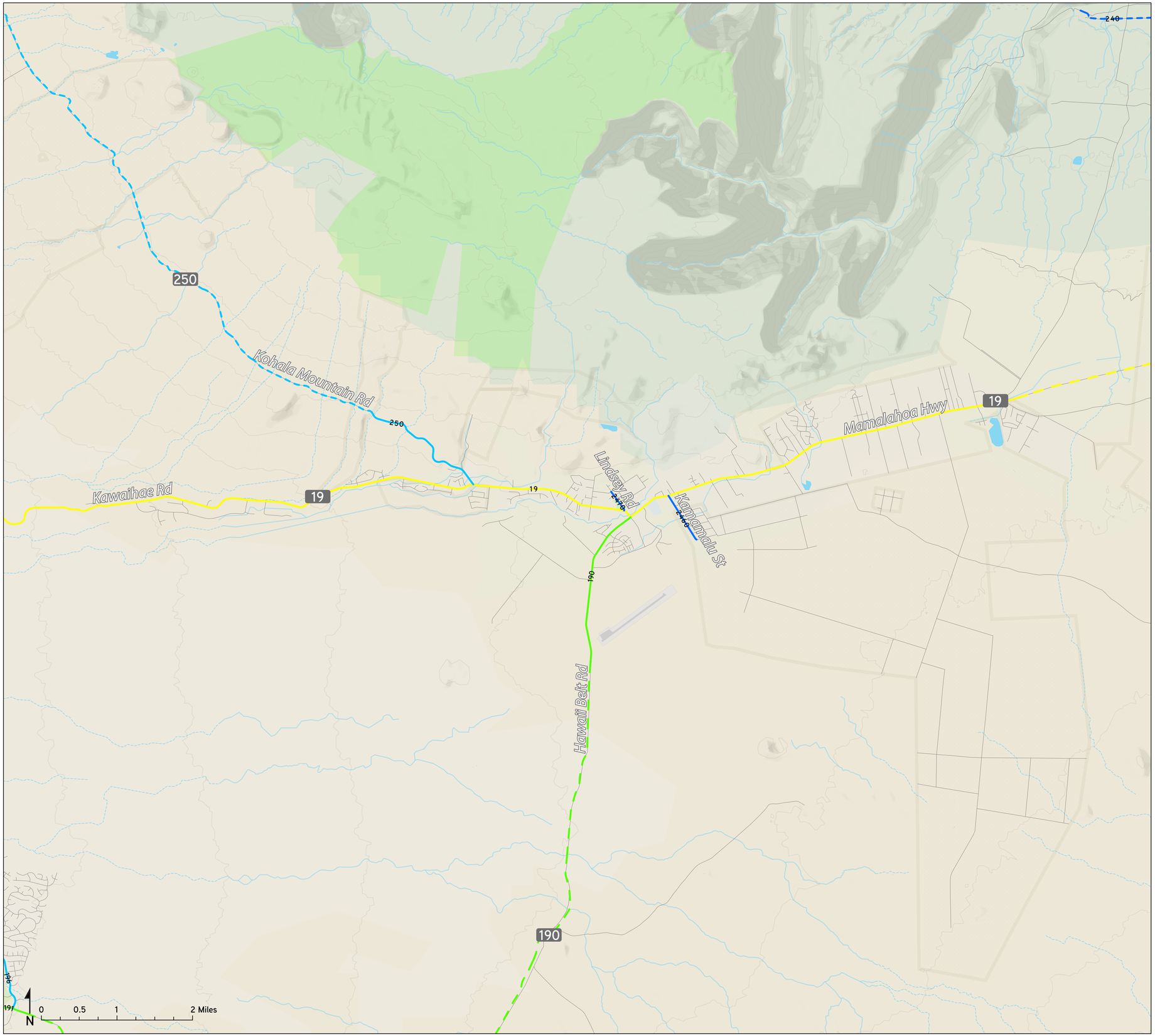
November 2024

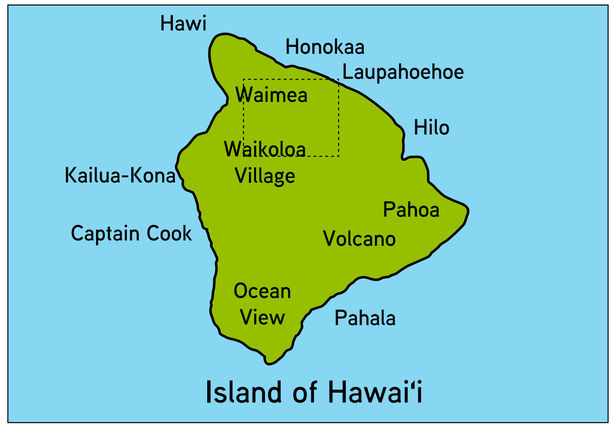
## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector




# Federal-Aid Roadway Functional Classification County of Hawai'i Inset 2: Waimea

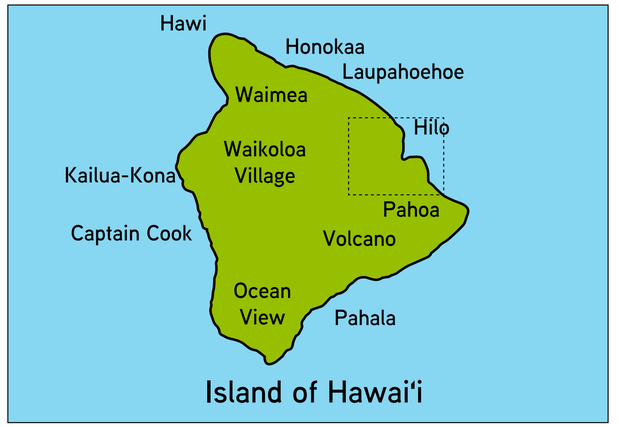
November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector


# Federal-Aid Roadway Functional Classification County of Hawai'i Inset 3: Hilo

November 2024

## Legend

- Airports
- Commercial Harbors
- Roads
- Urban Principal Arterial - Interstate
- Urban Principal Arterial - Freeways/Expressways
- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Principal Arterial - Interstate
- Rural Principal Arterial - Other
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector

### Proposed Roads

- Urban Principal Arterial - Other
- Urban Minor Arterial
- Urban Major Collector
- Urban Minor Collector
- Rural Minor Arterial
- Rural Major Collector