

Model Inventory of Roadway Elements (MIRE) Fundamental Data Elements (FDE)

Questions & Answers

February 2024

Except for the statutes and regulations cited, the contents of this document do not have the force and effect of law and are not meant to bind the States or the public in any way. This document is intended only to provide information regarding existing requirements under the law or agency policies.

1. Q: What roads are included in the MIRE FDE requirement?

A: MIRE FDE requirements apply to all public roads. [23 CFR 924.9(a)(1)]. For purposes of this requirement, a public road is any highway, road, or street under the jurisdiction of and maintained by a public authority and open to public travel, including non-State-owned public roads and roads on tribal land. [23 CFR 924.3].

In this definition, a public authority is a Federal, State, county, town, or township, Indian tribe, municipal or other local government or instrumentality with authority to finance, build, operate or maintain toll or toll-free facilities. [23 U.S.C. 101(a)(22)]. For the purpose of MIRE fundamental data element applicability, the term "open to public travel" means that the road section is available, except during scheduled periods, extreme weather, or emergency conditions, passable by four-wheel standard passenger cars, and open to the general public for use without restrictive gates, prohibitive signs, or regulation other than restrictions based on size, weight, or class of registration. Toll plazas of public toll roads are not considered restrictive gates. [23 CFR 924.17; 23 CFR 460.2(c)].

2. Q: Do private gated communities constitute a 'public' road?

A: Roads within private gated communities would need to be: 1) under the jurisdiction of a public authority, 2) maintained by a public authority, AND 3) open to public travel to constitute a public road. [23 CFR 924.3]. All three conditions must be met in order for a road within a private gated community to be considered 'public.' Only public roads are subject to the MIRE FDE requirements.

Similarly, roads within military bases and other closed facilities that are not open to public travel would not be considered 'public' and therefore would be exempt from the MIRE FDE requirements.

3. Q: Pursuant to 23 CFR 924.11(b), "States shall have access to the FDEs on all public roads by September 30, 2026." What does "have access to" mean in this provision?

A: States may have access to the MIRE FDEs by collecting the data themselves. This is not the only method in which a State can have access to the MIRE FDEs. States will also meet this requirement if they have established access to a complete collection of MIRE FDEs on public roads from any source (i.e., the State has an established agreement whereby they regularly receive the data or have existing access to it through electronic means).

4. Q: What Federal resources are available to help pay for the collection of MIRE FDEs?

A: States rely on the collection and analysis of safety data to conduct problem identification,

countermeasure identification, and project prioritization, which are the foundation of the HSIP process. [23 U.S.C. 148(c)(2); 23 CFR 924.9(a)]. States also use safety data to evaluate the effectiveness of their program of implemented safety projects. [23 U.S.C. 148(h)(1)(B); 23 CFR 924.15(a)(1)(iv)]. The planning process of the HSIP may be financed with funds made available through 23 U.S.C. 104(b)(3) and 505, and, where applicable in metropolitan planning areas, 23 U.S.C. 104(d). The eligible use of the program funding categories listed for HSIP planning efforts is subject to that program's eligibility requirements and cost allocation procedures as per 2 CFR part 200. [23 CFR 924.9(b)].

States should coordinate with their respective Division Office to ensure compliance with all applicable funding requirements.

5. *Q: What are the consequences for not meeting the MIRE FDE requirements by the September 30, 2026, deadline?*

A: While there is no specific penalty associated with the collection of the MIRE FDEs, 23 U.S.C. 148(c)(2)(A) requires States to have in place a safety data system to perform safety problem identification and countermeasure analysis as part of the State HSIP. Pursuant to 23 CFR 924.11(b), States are required to have a complete collection of MIRE FDEs on all public roads by September 30, 2026. If your State is anticipating completion challenges, please alert your respective FHWA Division Office as soon as possible so FHWA can help navigate any issues.

6. *Q: Are there any MIRE FDE requirements beyond the September 30, 2026, deadline?*

A: Yes. As part of the HSIP planning process, States shall have a process for collecting and maintaining safety data (including MIRE FDEs) on all public roads [23 CFR Part 924.9(a)(1)]. Furthermore, States shall have a process for advancing their capabilities for safety data (including MIRE FDEs) collection and analysis by improving the timeliness, accuracy, completeness, uniformity, integration, and accessibility of their safety data on all public roads [23 CFR Part 924.9(a)(2)]. Both of these requirements apply to the MIRE FDEs.

7. *Q: Are States allowed to develop an Annual Average Daily Traffic (AADT) estimation methodology similar to the Highway Performance Monitoring System (HPMS) for use in meeting the MIRE FDE requirements?*

A: Yes. There is no requirement for a specific method to collect the MIRE FDEs. AADT, for example, may be calculated for road segments (e.g., local, paved roads) using traffic counts taken on multiyear cycles or from permanent (continuous) or temporary count stations (short term) that provide representative samples for the specific road types.

8. *Q: Are there data collection specifications for MIRE FDEs?*

A: No, there is no requirement for MIRE FDEs to meet data collection specifications like those provided in HPMS. However, the collection of MIRE FDEs is a separate requirement [23 CFR 924.17], and no part of the MIRE FDE requirements abridge HPMS data collection and reporting standards as stipulated in the HPMS Field Manual for specific data elements and road systems (e.g., National Highway System (NHS) and Federal Aid Highways).¹

¹ https://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/hpms_field_manual_dec2016.pdf

For example, HPMS stipulates several data collection specifications for AADT (e.g. “AADTs for the NHS, Interstate, Principal Arterial (OFE, OPA) roadway sections shall be based on traffic counts taken on a minimum three-year cycle”)² that are not included in the MIRE FDE requirements. States are responsible for establishing what data collection specifications meet their needs and ensure compliance with all applicable Federal requirements.

In addition to requirements involving the collection of the MIRE FDEs, overall, a State’s safety data system shall improve the timeliness, accuracy, completeness, uniformity, integration and accessibility of safety data; evaluate effectiveness of data improvements efforts; link with other State data systems; improve compatibility and interoperability of safety data with other State transportation-related data systems and national and other State data systems; enhance the ability of FHWA to observe and analyze national trends; and improve data collection of nonmotorized crashes [23 U.S.C. 148(c)(2)(A)].

9. Q: When the HPMS Field Manual and MIRE FDE requirements overlap, which one should States follow?

A: The HPMS Field Manual stipulates States collect full extent data for some road types; for others, it limits data collection to sample panels or no data collection.

The MIRE FDE requirement is the same as the HPMS Field Manual full extent data collection for all applicable public roads. In cases where a MIRE Fundamental Data Element and HPMS data Item overlap, States are nonetheless required to have a complete (i.e., full extent) collection of MIRE FDEs on all public roads [23 CFR 924.11(b)], even if HPMS directs or permits sample data submissions or limits data collection and reporting to just the National Highway System (NHS) or just Federal-aid highways.

10. Q: What if States are unable to collect the full list of ‘Surface Type’ attributes for road segments off the National Highway System (NHS) by September 30, 2026?

A: Per the HPMS Field Manual, States currently collect full extent ‘Surface Type’ data on all NHS roads and on roads functionally classified as ‘Interstates.’ For all other route types, FHWA will consider a condensed set of attribute group values to be sufficient to support a data-driven safety program and meet the requirement that the State have access to a complete collection of the MIRE FDEs on all public roads by September 30, 2026.

The detailed attributes as described in MIRE 1.0 and 2.0 for the ‘Surface Type’ element are not necessary for the purposes of the September 30, 2026, requirement for roads that are not on the NHS and are not functionally classified as ‘Interstates.’ States may instead collect the following set of surface type attribute group values, consistent with HPMS and MIRE. States that have one of these four values for each road segment off the NHS and for roads not functionally classified as ‘Interstates’ will be considered compliant with this MIRE FDE requirement.

² https://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/hpms_field_manual_dec2016.pdf, page 4-52

Existing MIRE and HPMS Surface Type Attributes	Acceptable MIRE Surface Type Attribute Group Values Off the NHS
Unpaved – Dirt	Unpaved Surface
Unpaved – Gravel	
Unpaved – Other	
Bituminous	Asphalt Pavement
Asphalt-Concrete (AC) Overlay over Existing AC Pavement	
AC Overlay over Existing Jointed Concrete Pavement	
AC (Bi Overlay over Existing CRCP)	
JPCP – Jointed Plain Concrete Pavement	Concrete Pavement
JRCP – Jointed Reinforced Concrete Pavement	
CRCP – Continuously Reinforced Concrete Pavement	
Unbonded Jointed Concrete Overlay on Portland Cement Concrete (PCC) Pavements	
Unbonded CRCP Overlay on PCC Pavements*	
Bonded PCC Overlays on PCC Pavements	
Other (e.g., plank, brick, cobblestone, etc.)	Other Paved Surface

* *Not a value in the HPMS Field Manual.*