

All Roads Layer

Michigan Geographic Framework

Field Definitions

(Shapefile Attribute Table)
(June 1, 2014 – Version 14a)

The following field definitions make up the shapefile attribute table called All Roads. This shapefile consists of all road segments as they are classified in the Michigan Geographic Framework. The Michigan Center for Geographic Information is also distributing Framework road segment shapefiles consisting of the road segments that are owned by the State of Michigan.

The attribute table for the All Roads layer can be found in the file Allroads_999v14a.DBF where 999 equals the FIPS county number contained in the file. The FIPS county numbering system uses odd numbers only. The numbers are assigned in alphabetical order. For example, county 001 is Alcona and county 165 is Wexford.

Please Note: If you have any questions about the framework data you have received, please contact Josh Ross at the Center for Shared Solutions and Technology Partnerships. Phone: 517-373-7910, email: rossj@michigan.gov

Field Name	Type	Size	Description	Comments
FCC	C	3	Framework Classification Code	See FCC Road Appendix at end of document.
RDNAME	C	60	This field contains a concatenated street name made up of the data contained in FEDIRP, NAME, FETYPE, and FEDIRS	For further information, see info on FEDIRP, NAME, FETYPE, and FEDIRS below.
FRADDL	N	11	Left side from Address	Potential “from” and “to” address ranges. These ranges were originally transferred from TIGER. Some modifications have since been made.
TOADDL	N	11	Left side to Address	
FRADDR	N	11	Right side from Address	
TOADDR	N	11	Right side to Address	
ZIPL	N	5	Left side ZIP code	ZIP codes as created by the Michigan Center for Geographic Information based on US Postal Service data. These zip code fields may contain incomplete data at this time.
ZIPR	N	5	Right side ZIP code	
FMCDL	I	5	Left side Federal Information Processing Standards (FIPS) MCD code	Minor Civil Division (MCD) boundaries may be displayed by selecting FMCDL <> FMCDR. The MCD polygon boundaries have been closed. All arcs have been assigned FMCDL and FMCDR values.
FMCDR	I	5	Right side FIPS MCD code	

Field Name	Type	Size	Description	Comments
FEDIRP	C	2	Feature Prefix Direction	A pre-directional associated with an arc's street name (N, S, E, W, etc.).
NAME	C	30	Feature Name	The street name assigned to the arc. *
FETYPE	C	4	Feature Type	The street type (AVE, BLVD, RD, ST etc) assigned to the arc.
FEDIRS	C	2	Feature Suffix Direction	A post-directional associated with an arc's street name component (N, S, E, W, etc.).
FEDIRP2	C	2	Secondary Feature Prefix Direction	Road name aliases (e.g., Ford Fwy for I-94 Fwy).
NAME2	C	30	Secondary Feature Name	
FETYPE2	C	4	Secondary Feature Type	
FEDIRS2	C	2	Secondary Feature Suffix Direction	
FEDIRP3	C	2	Feature Direction Prefix 3	A pre-directional used by the Post Office in the Zip+4 associated with an arc's street name (N, S, E, W, etc.). This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, NAME, etc.)
NAME3	C	30	Feature Name 3	The name used by the Post Office in the Zip+4. This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, NAME, etc.)
FETYPE3	C	4	Feature Type 3	The street type of the Post Office/Zip+4 name (N, S, E, W, etc.). This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, NAME, etc.)
FEDIRS3	C	2	Feature Direction Suffix 3	A post-directional associated with an arc's Post Office/Zip+4 name (N, S, E, W, etc.). This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, NAME, etc.)

Field Name	Type	Size	Description	Comments
NFC	N	2	<p>MDOT National Functional Classification (NFC) code</p> <p>1 – Interstates 2 – Other Freeways 3 – Other Principal Arterials 4 – Minor Arterials 5 – Major Collectors 6 – Minor Collectors 7 – Local 0 or uncoded -- not a certified public road</p>	<p>Uses United States Department of Transportation (USDOT) system classifying all roads by their transportation function. This system is called the National Functional Classification (NFC) system.</p> <p>There are three major types: (Arterial, Collector, and Local)</p> <p>Future NFC route locations are available in shapefile format. Please contact CGI to obtain a copy.</p>
RU_L	I	1	Rural/Urban Designation Left	<p>Code Description</p> <p>1 Rural Area 2 Small Urban Area (5,000 to 49,999) 3 Small Urbanized Area (Population 50,000 to 199,999) 4 Large Urbanized Area (Population 200,000 or More)</p>
RU_R	I	1	Rural/Urban Designation Right	

Field Name	Type	Size	Description	Comments
LEGALSYSTEM	N	2	Indicates ownership of the road 1 – State Trunkline 2 – County Primary 3 – County Local 4 – City Major 5 – City Minor 7 – Uncertified with a Funclass	The legal system defines the importance of the road and the unit of government that has jurisdiction over the road. This field may or may not be filled in this version of the file.
PR	N	7	Physical Road ID number	Michigan Dept. of Transportation (MDOT's) standard for the Linear Referencing System requires that Physical Roads (PRs) are continuous without gaps or overlaps in mile posting.
BMP	N	10,3	Beginning PR (Physical Road) segment Mile Point for linear referencing system	This value is derived from the MALI database and may not match the GIS length.
EMP	N	10,3	Ending PR (Physical Road) segment Mile Point for linear referencing system	This value is derived from the MALI database and may not match the GIS length.
BPT	C	8	Permanent, unique segment Beginning Point ID	Used along with PR as the fundamental key in identifying change transactions
EPT	C	8	Permanent, unique segment Ending Point ID	Used along with PR as the fundamental key in identifying change transactions
LRS_LINK	C	23	Linear Referencing System link field	This field consists of the PR, BPT and EPT fields concatenated (PR, BPT and EPT defined above). This field uniquely identifies a road segment . It will be used to track changes made to road segments that have assigned PRs (Physical Road numbers).
LENGTH	F	20,5	Arc Length	Feature length in meters obtained from the ArcInfo AAT.
OID	F	20	Object Identification Number : Michigan Geographic Framework (MGF) Version 3.0 ID	Unique ID
VER	C	3	Michigan Geographic Framework Version Number	The VER field contains the Michigan Geographic Framework version from which the layer was created.

Type: C Character
 F Floating Point
 N Numeric
 I Integer

Appendix D

Framework Classification Code:

Field definitions and Valid Entries

April 2, 2014

The Framework Classification Code (FCC) is a 3-character field in the framework coverage. The initial value in the FCC field is derived from data that is already associated with the feature. As additional editing takes place, the FCC value will be updated based on the definitions described in this document. New features added to framework will be given the appropriate FCC value based on these same definitions. New Classification Codes may also be created as needed.

A00 – Future road under construction

A1* – Limited access Interstates and non-Interstates (aka Freeways) such as I 75, I 94, US 27, M 39

Valid Codes:

A11 – Limited access Interstate

A12 – Limited access non-Interstate

A13 – Ramp to or from a limited access highway

A14 – Feature associated with rest areas, weigh stations and MDOT garages that are accessible only from A11 or A12 roads

A15 – Collector/Distributor. Specialized ramp like feature that distributes traffic within complex interchanges. Must connect at both ends with a main line (A11 or A12). Must intersect at least 2 ramps. IE: I 94 and I 69 interchange in Calhoun County near Marshall.

A16 – Restricted use turnaround in a limited access highway. Normally a feature crossing the median.

A2* – US Highways & State Highways such as M 52, US 12. (Not limited access)

Valid Codes:

A21 – Unlimited access US Highways & State Highways

A22 – Unsigned State Trunkline Highways

A23 – Ramp to or from an unlimited access highway

A24 – Feature associated with non-limited access rest areas and roadside parks

A25 – State owned surface streets that act as service drives to limited access Freeways (A11 or A12)

A26 – State trunkline boulevard turnaround (Non-limited access)

A29 – Unlimited access end of the ramp between the barrels of the boulevard.

A3* – These roads are classified based on **National Functional Classification (NFC)**. NFC is an attribute of the Framework coverage. The Michigan Department of Transportation assigned each NFC value. NFC is a planning tool which federal, state and local transportation agencies have used since the late 1960's. The Federal Highway Administration (FHWA) developed this system of classifying all streets, roads and highways according to their function. The FHWA publication, "Highway Functional Classification: Concepts, Criteria and Procedures", provides the basis for much of the following information.

Principal arterials are at the top of the NFC hierarchical system. Principal arterials generally carry long distance, through-travel movements. They also provide access to important traffic generators, such as major airports or regional shopping centers.

Minor arterials are similar in function to principal arterials, except they carry trips of shorter distance and to lesser traffic generators.

Collectors tend to provide more access to property than do arterials. Collectors also funnel traffic from residential or rural areas to arterials.

Valid Codes:

A31 - Principal Arterial roads (NFC other than 7)

A32 - Minor Arterial roads (NFC = 7)

A33 - Residential court or cul-de-sac

A4* - Non-Certified Roads – These are roads that have PR numbers.

Valid Codes:

A41 - General non-certified – The majority of non-certified roads fall into this category

A42 - Turnarounds – Feature that crosses a median. Normally used to facilitate a left-hand turn

A43 - Non-certified residential court or cul-de-sac

A44 - University owned roads

A45 – Forest roads within federal jurisdiction

A46 – Institutional roads within state jurisdiction

A47 – Roads to an airport

A48 – Roads to an airport

A6* - Roads with special characteristics, these roads may or may not have been updated in the current framework version.

Valid Codes:

A61 – Unnamed, non PR (Physical Road Number) roads within Cemeteries.

A62 – Unnamed, non PR internal drives around malls, commercial sites, retail sites, industrial sites, office sites, schools, colleges, and universities.

A63 – Unnamed, non PR driveways. A driveway is defined as a road that serves only one residence.

A64 – Internal roads of Federal, State and Local parks and campgrounds. These roads may have names and PRs

A65 – Unnamed, non PR roads in residential areas. IE: apartment complexes, mobile home communities, and new developments.

A66 – Unnamed, non PR two-track roads or vehicular trails.

A67 – Boating Access Site (BAS)

A68 – Indian Reservation Roads (IRR)

A69 – All other features that were originally classified as a road feature in TIGER or MIRIS but do not match any of the criteria used to classify framework roads. More research is needed to better classify these roads.

A7* - Non-vehicular transportation features: These features may or may not have been updated in the current framework version.

Valid Codes:

A70 – Approved U. S. Bicycle Routes

A71 - General Trails or Paths, these features may have multiple uses. IE: Biking, Hiking, Cross County Skiing, Horse, or Snowmobile

A72 - Rail-to-trail, these features may have names and PRs

A73 - Pedestrian overpasses, these features may have names and PRs

A75 – Transportation Structure, usually used to retain a structure identifier.

A9* - Artificial road feature: These roads are not seen on a Digital Ortho Quad, but are needed to retain important attribute information.

Valid Codes:

A90 - Certified road right-of-ways. These roads are owned by a local jurisdiction (Act 51 certified), but are not drivable.

A91 - Road whose existence is strongly questioned, but have not been confirmed as not existing by a local jurisdiction.

A92 – Artificial roads that serve as control section break.

A93 – Artificial roads that serve as pseudo PR break.

A94 – Artificial roads that serve as PR break.

A95 – Administration only forest roads within Federal Jurisdiction which are also certified by Act 51.