

LRS Editing System: Functional Class Events, Continuous Capture – NC Department of Transportation

SDE Geodatabase Feature Class



Tags

Linear Referencing System, Event, Measure, Line, North Carolina, NCDOT, Transportation, Highway, Roads, Routes, Centerline, State Highway Network, Inventory, Transportation Planning, Location, Road Classification, Functional Classification.

Summary

This feature class contains measured occurrences (events) of highway functional classifications represented as lines aligned to NCDOT's Linear Reference System (LRS) Network of routes. Attributes containing Event ID and the NCDOT 11-digit Route ID are included. This event also contains the following attributes: Functional Class and Functional Class Date. For each linear event occurrence, From Measure and To Measure fields provide beginning and end locations of the event along the NCDOT's MilePoint route network. Measures represent a location along a route based on distance from the route's origin. The measure is captured in miles. The precision is to the 6th decimal in the tabular column. Measure precision on the shape is to the 7th decimal. This is one of many events included in NCDOT's LRS, representing route characteristic attributes of the NCDOT state road system. The LRS route network is comprised of Interstate, US, NC, Secondary Roads, Ramps, and non-state maintained and projected roads required for federal reporting purposes.

Description

Functional classification is the process of grouping streets and highways into classes according to the character of service they are intended to provide. The functional classes are as follows: Interstate; Other Freeways and Expressways; Other Principal Arterial; Minor Arterial, Major Collector and Minor Collector, and Local Roads. The Transportation Planning Branch is responsible for processing updates to the Federal Functional Classification System in North Carolina. More information can be found here:

<https://connect.ncdot.gov/projects/planning/Pages/Functional-Classification-of-Highways.aspx>

More detailed information about functional classification may be found on this Federal Highway Administration (FHWA) web site: https://www.fhwa.dot.gov/planning/processes/statewide/related/functional_classification/

The FHWA's Highway Functional Classification Concepts, Criteria and Procedures document (https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf) describes the procedures and processes for assigning functional classifications to roadways.

Interstates

Interstates are the highest classification of Arterials and were designed and constructed with mobility and long-distance travel in mind. 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. 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.

Other Freeways & Expressways

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.

Other Principal Arterials

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. 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, an expanse of a rural area of equal size would be served by a single Arterial.

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. 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.

Major and Minor Collectors

Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into major and minor categories. 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. 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.

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. They are often designed to discourage through traffic. 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.

NCDOT adopted the road centerline based LRS Network as its official Enterprise LRS, to which multiple road inventory attributes are referenced along measured routes throughout North Carolina. These routes are classified as either System or Non-System routes. System routes are routes within the state-maintained road network, and are comprised of Interstates, US Routes, NC Routes, Secondary Routes, Ramps, and Non-System Routes. Non-System routes are routes that are typically not maintained by NCDOT, but instead by a local agency (county, city or MPO/RPO). The local agency is the source for updating these Non-System route in NCDOT's LRS.

An LRS is a system for storing geographic locations along linear elements using relative locations. Location is given in terms of a known linear feature and a position, or measure, along it based on a distance from a known point of origin. The road centerline feature class is the geometry source from which NCDOT's routes are created in the LRS. The collection of routes, System and Non-System, is the NCDOT LRS Network referred to as MilePoint. For NCDOT, MilePoint provides the linear measures in miles, from the origin of each route. Events are stored on or along routes. Events are continuous linear or point features and can be anything that occurs on or describes a route. Examples in NCDOT's LRS are speed limit, lane width, functional class, surface type, ownership, or highway exit. Events describe an attribute of a route and have a location along the route (measured by the distance, in miles for NCDOT's LRS, from the start of the route). Multiple sets of road attributes (events) can be associated with any portion of the underlying routes. This allows the events to be independent of where the route of begins and ends, preventing the linework split each time there is an attribute value change.

The GIS Unit of the North Carolina Department of Information Technology-Transportation (NCDIT-T) has been tasked with developing and maintaining NCDOT's Linear Referencing System. The GIS Unit employs the use of GIS spatial layers to reference LRS data to real world locations. The integration of LRS to spatial layers provides a means to analyze data using GIS methods, facilitates the creation of cartographic products, and allows the

enforcement of business rules. The unit is authorized to edit the LRS to match official documentation. This also includes the capture of attributes (event data) that are referenced to the linework. The NCDOT road centerline is a spatial representation of official documentation of what roads or sections of roads are physically maintained by the State. Changes to the spatial representation of the road centerline for NCDOT are authorized by the NC Board of Transportation or other business units within NCDOT.

Editing of the LRS at NCDOT is performed by multiple contributing business unit data owners. This designates it as an enterprise GIS data editing system. The GIS Unit at NCDIT-T modifies the LRS Network routes by creating, editing, or retiring based on official change notification from various NCDOT sources. Once the routes have been edited, business units may update their event data as found on the routes based on the same or additional documentation. Business units edit the LRS events using Esri's ArcGIS Event Editor, a map-centric web app that supports linear referenced event data editing via feature services. Some events are also maintained by the GIS Unit at NCDIT-T. More information about Event Editor is available here: <https://enterprise.arcgis.com/en/roads-highways/latest/event-editor/what-is-event-editor.htm>.

Credits

The North Carolina Department of Transportation, Division of Highways.

Support and maintenance of the enterprise spatial database where this data resides is handled by the North Carolina Department of Information Technology-Transportation, GIS Unit.

Use limitations

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

Extent

West -84.421464 **East** -75.418363
North 36.615122 **South** 33.733304

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:500,000

ArcGIS Metadata ►

Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE location, society, transportation

CONTENT TYPE Geographic Services

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION No

PLACE KEYWORDS North Carolina

THESAURUS ►

TITLE User

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

Hide Thesaurus ▲

THEME KEYWORDS Line, Linear Referencing System, Event, Measure, Line, NCDOT, Transportation, Highway, Roads, Routes, Centerline, State Highway Network, Inventory, Road Classification, Functional Classification.

THESAURUS ▶

TITLE User

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

[Hide Thesaurus ▲](#)

[Hide Topics and Keywords ▲](#)

Citation ▶

TITLE LRS Editing System: Functional Class Events, Continuous Capture – NC Department of Transportation

ALTERNATE TITLES LRSE_FunctionalClass

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

PRESENTATION FORMATS * digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

[Hide Citation ▲](#)

Citation Contacts ▶

RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Transportation, Transportation Planning Division

CONTACT'S POSITION TPD Data Manager

CONTACT'S ROLE originator

CONTACT INFORMATION ▶

PHONE

VOICE 919-707-0900

ADDRESS

TYPE physical

DELIVERY POINT 1 South Wilmington Street

CITY Raleigh

ADMINISTRATIVE AREA NC

POSTAL CODE 27601

COUNTRY US

E-MAIL ADDRESS gishelp@ncdot.gov

HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

CONTACT INSTRUCTIONS

Please send an email with any issues, questions or comments regarding the NC Planning Geodatabase. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit
CONTACT'S POSITION GIS Data and Services Consultant
CONTACT'S ROLE resource provider

CONTACT INFORMATION ►

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TYPE physical
DELIVERY POINT 4101 Capital Blvd.
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CONTACT'S ROLE point of contact

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Hide Citation Contacts ▲

Resource Details ►

DATASET LANGUAGES * English (UNITED STATES)
DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS on-going
SPATIAL REPRESENTATION TYPE * vector

PROCESSING ENVIRONMENT Esri ArcGIS 12.9.3.32739

CREDITS

The North Carolina Department of Transportation, Division of Highways.

Support and maintenance of the enterprise spatial database where this data resides is handled by the North Carolina Department of Information Technology-Transportation, GIS Unit.

Extents ►

EXTENT

VERTICAL EXTENT

- * MINIMUM VALUE -59.600000
- * MAXIMUM VALUE 6577.400000

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

- * WEST LONGITUDE -84.421464
- * EAST LONGITUDE -75.418363
- * NORTH LATITUDE 36.615122
- * SOUTH LATITUDE 33.733304
- * EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

- * WEST LONGITUDE 406980.080272
- * EAST LONGITUDE 3051823.000288
- * SOUTH LATITUDE 35982.805072
- * NORTH LATITUDE 1042848.119824
- * EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit
CONTACT'S POSITION GIS Data and Services Consultant
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

ADDRESS

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DELIVERY POINT 4101 Capital Blvd.
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[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY continual

SCOPE OF THE UPDATES dataset

OTHER MAINTENANCE REQUIREMENTS

The North Carolina Department of Transportation, Division of Highways maintenance is as needed and not regularly scheduled.

Support and maintenance of the spatial database where this data resides is handled by the North Carolina Department of Information Technology-Transportation, GIS Unit.

MAINTENANCE CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit

CONTACT'S POSITION GIS Data and Services Consultant

CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

ADDRESS

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DELIVERY POINT 4101 Capital Blvd.

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POSTAL CODE 27604

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[Hide Contact information ▲](#)

[Hide Resource Maintenance ▲](#)

Resource Constraints ►

CONSTRAINTS

LIMITATIONS OF USE

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LEGAL CONSTRAINTS

LIMITATIONS OF USE

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SECURITY CONSTRAINTS

CLASSIFICATION unclassified

CLASSIFICATION SYSTEM None

LIMITATIONS OF USE

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[Hide Resource Constraints ▲](#)

Spatial Reference ►

ARC GIS COORDINATE SYSTEM

- * TYPE Projected
- * GEOGRAPHIC COORDINATE REFERENCE GCS_North_American_1983
- * PROJECTION NAD_1983_StatePlane_North_Carolina_FIPS_3200_Feet
- * COORDINATE REFERENCE DETAILS

PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102719
X ORIGIN -121841900
Y ORIGIN -93659000
XY SCALE 1893.9393939393938
Z ORIGIN -100000
Z SCALE 9.9999999999999982
M ORIGIN -100000
M SCALE 10000000
XY TOLERANCE 0.00528
Z TOLERANCE 0.200000000000000004
M TOLERANCE 9.9999999999999995e-007
HIGH PRECISION true
LATEST WELL-KNOWN IDENTIFIER 2264
VCSWKID 105703
LATESTVCSWKID 6360
WELL-KNOWN TEXT

PROJCS["NAD_1983_StatePlane_North_Carolina_FIPS_3200_Feet",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",2000000.0026166666],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-79.0],PARAMETER["Standard_Parallel_1",34.33333333333334],PARAMETER["Standard_Parallel_2",36.16666666666666],PARAMETER["Latitude_Of_Origin",33.75],UNIT["Foot_US",0.3048006096012192]],V

ERTCS["NAVD_1988_Foot_US",VDATUM["North_American_Vertical_Datum_1988"],PARAMETER["Vertical_Shift",0.0],PARAMETER["Direction",1.0],UNIT["Foot_US",0.3048006096012192]]

REFERENCE SYSTEM IDENTIFIER

- * VALUE 2264
- * CODESPACE EPSG
- * VERSION 6.12(9.0.0)

[Hide Spatial Reference ▲](#)

Spatial Data Properties ►

VECTOR ►

- * LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

- FEATURE CLASS NAME LRSE_FunctionalClass
- * OBJECT TYPE composite
- * OBJECT COUNT 408719

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

- FEATURE CLASS NAME LRSE_FunctionalClass
- * FEATURE TYPE Simple
- * GEOMETRY TYPE Polyline
- * HAS TOPOLOGY FALSE
- * FEATURE COUNT 408719
- * SPATIAL INDEX TRUE
- * LINEAR REFERENCING TRUE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

Data Quality ►

SCOPE OF QUALITY INFORMATION ►

- RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)

DATA QUALITY REPORT - COMPLETENESS COMMISSION ►

MEASURE DESCRIPTION

Contributing editors are responsible for the quality control and assessment of data at the time of data entry. Additional resources may be utilized by the data owner/editor groups to assess quality of data on a more comprehensive scale. The primary tool in use for quality assessment in the NCDOT LRS Editing System is Esri's Data Reviewer extension. The quality of this data is subject to the oversight of the editing party.

CONFORMANCE TEST RESULTS

- TEST PASSED Yes
- RESULT EXPLANATION

Pass.

PRODUCT SPECIFICATION ▶

TITLE NCDOT Geospatial Data Specifications

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

[Hide Product specification ▲](#)

[Hide Data quality report - Completeness commission ▲](#)

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY ▶

MEASURE DESCRIPTION

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CONFORMANCE TEST RESULTS

TEST PASSED Yes

RESULT EXPLANATION

Pass.

PRODUCT SPECIFICATION ▶

TITLE NCDOT Geospatial Data Specifications

CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

[Hide Product specification ▲](#)

[Hide Data quality report - Conceptual consistency ▲](#)

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ▶

MEASURE DESCRIPTION

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CONFORMANCE TEST RESULTS

TEST PASSED Yes

RESULT EXPLANATION

Pass.

PRODUCT SPECIFICATION ►

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CREATION DATE 2016-10-13 00:00:00

PUBLICATION DATE 2016-10-13 00:00:00

[Hide Product specification ▲](#)

[Hide Data quality report - Quantitative attribute accuracy ▲](#)

[Hide Data Quality ▲](#)

Lineage ►

LINEAGE STATEMENT

LRS editing is done across many NCDOT business units on an enterprise system using Esri's ArcGIS Event Editor web mapping application. This dataset was originally developed by the North Carolina Department of Transportation, Transportation Planning Division in conjunction with the GIS Unit at NCDIT-T, to provide a geographic representation of highway functional classifications in North Carolina. The GIS Unit modifies the LRS Network routes by creating, editing, or retiring based on official change notification from various NCDOT sources. Once the routes have been edited, business units may update their data as found on the routes based on the same or additional documentation. Web mapping services are created from some of the events. The LRS supports systems, web applications, and geospatial data needs across NCDOT business units, as well as submittal to the Federal Highway Administration's Highway Performance Monitoring System (HPMS).

PROCESS STEP ►

WHEN THE PROCESS OCCURRED 2016-10-13 00:00:00

DESCRIPTION

Development and maintenance of NCDOT's Linear Referencing System. This includes the road centerline, route network, some events, and other related spatial data.

PROCESS CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit

CONTACT'S POSITION GIS Data and Services Consultant

CONTACT'S ROLE originator

CONTACT INFORMATION ►

ADDRESS

TYPE physical

DELIVERY POINT 4101 Capital Blvd.

CITY Raleigh

ADMINISTRATIVE AREA North Carolina

POSTAL CODE 27604

COUNTRY US

E-MAIL ADDRESS gishelp@ncdot.gov

HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

CONTACT INSTRUCTIONS

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[Hide Contact information ▲](#)

[Hide Process step ▲](#)

PROCESS STEP ▶

WHEN THE PROCESS OCCURRED 2016-10-13 00:00:00

DESCRIPTION

Routes are created, edited, and/or retired based on official change notification from various NCDOT sources. Road attribute-only information is also provided to the GIS Unit. Once the routes have been edited, business units may update their data as found on the routes based on the same or additional documentation.

PROCESS CONTACT

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit
CONTACT'S POSITION GIS Data and Services Consultant
CONTACT'S ROLE resource provider

CONTACT INFORMATION ▶

ADDRESS

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[Hide Contact information ▲](#)

[Hide Process step ▲](#)

PROCESS STEP ▶

WHEN THE PROCESS OCCURRED 2016-10-13 00:00:00

DESCRIPTION

Road attributes (event data) are referenced to the LRS network (routes). The event is edited by the NCDOT Transportation Planning Division in an enterprise environment using Esri's online ArcGIS Event Editor software.

PROCESS CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation, Transportation Planning Division
CONTACT'S POSITION TPD Data Manager
CONTACT'S ROLE point of contact

CONTACT INFORMATION ▶

PHONE

VOICE 919-707-0900

ADDRESS

TYPE physical

DELIVERY POINT 1 South Wilmington Street

CITY Raleigh

ADMINISTRATIVE AREA NC

POSTAL CODE 27601

COUNTRY US

E-MAIL ADDRESS gishelp@ncdot.gov

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[Hide Contact information ▲](#)

[Hide Process step ▲](#)

[Hide Lineage ▲](#)

Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit

CONTACT'S POSITION GIS Data and Services Consultant

CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

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[Hide Distributor ▲](#)

DISTRIBUTION FORMAT

NAME SDE Geodatabase Feature Class

VERSION 10.8.1

[Hide Distribution ▲](#)

Fields ►

DETAILS FOR OBJECT [LRSE_FunctionalClass](#) ►

TYPE SDE Geodatabase Feature Class

* ROW COUNT 408719

DEFINITION

Functional Class

DEFINITION SOURCE

North Carolina Department of Transportation

FIELD [OBJECTID](#) ►

* ALIAS OBJECTID

* DATA TYPE OID

* WIDTH 4

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION

Internal feature number.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

[Hide Field OBJECTID ▲](#)

FIELD [Shape](#) ►

* ALIAS Shape

* DATA TYPE Geometry

* WIDTH 0

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION

Feature geometry.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Coordinates defining the features.

[Hide Field Shape ▲](#)

FIELD [FromDate](#) ►

- * ALIAS FromDate
- * DATA TYPE Date
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The date the event becomes active on the route.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Dates vary.

Hide Field FromDate ▲

FIELD ToDate ►

- * ALIAS ToDate
- * DATA TYPE Date
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The date the event is retired on the route.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Dates vary.

Hide Field ToDate ▲

FIELD EventID ►

- * ALIAS EventID
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The unique ID for each event record.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field EventID ▲

FIELD RouteID ►

- * ALIAS RouteID
- * DATA TYPE String
- * WIDTH 255
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The NCDOT eleven-digit number for each route in the network. More information explaining this route naming convention used by NCDOT is available here:

<https://xfer.services.ncdot.gov/gisdot/DistDOTData/Guide%20to%20the%20NCDOT%20Eleven-Digit%20Route%20Number%20-%20Rome%20Implementation.pdf>

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field RouteID ▲

FIELD FromMeasure ►

- * ALIAS FromMeasure
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The measure on the route where the beginning of the event is located. The measure is captured in miles. The precision is to the 6th decimal in the tabular column. Measure precision on the shape is to the 7th decimal.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field FromMeasure ▲

FIELD FunctionalClass ►

- * ALIAS FuncClass
- DATA TYPE Small Integer
- * WIDTH 2
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

A classification system of roads based on the character of traffic service that they are intended to provide. Approval of changes is done by the Federal Highway Administration and is managed by the Program Development Branch at NCDOT.

DESCRIPTION SOURCE

NCDOT

LIST OF VALUES

VALUE Interstate

DESCRIPTION Interstate highway, controlled access, on-off ramps, no at-grade intersections.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Federal Highway Administration functional classification system

VALUE PA-FrwyExp

DESCRIPTION Principal Arterials - Other Freeways and Expressways. 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.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Federal Highway Administration functional classification system

VALUE PA-Other

DESCRIPTION Other Principal Arterials. 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.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Federal Highway Administration functional classification system

VALUE Minor Arterial

DESCRIPTION Minor Arterial road. 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.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Federal Highway Administration functional classification system

VALUE Major Collector

DESCRIPTION Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas. 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.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Federal Highway Administration functional classification system

VALUE Minor Collector

DESCRIPTION Serve both land access and traffic circulation in lower density residential and commercial/industrial areas. 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.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Federal Highway Administration functional classification system

VALUE Local

DESCRIPTION Local Roads

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Federal Highway Administration functional classification system

Hide Field FunctionalClass ▲

FIELD FunctionalClassDate ►

* ALIAS FuncClassDate

* DATA TYPE Date

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

The date which the road became part of the Federal Highway Administration and is managed by the Program Development Branch at NCDOT.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Dates vary.

[Hide Field FunctionalClassDate ▲](#)

FIELD ToMeasure ►

- * ALIAS ToMeasure
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The measure on the route where the end of the event is located. The measure is captured in miles. The precision is to the 6th decimal in the tabular column. Measure precision on the shape is to the 7th decimal.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

[Hide Field ToMeasure ▲](#)

FIELD LocError ►

- * ALIAS LocError
- * DATA TYPE String
- * WIDTH 100
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The location error for the event. Values are generated as part of an internal Esri software QC process for the event time slice on the matching route time slice. Possible values listed below.

NO ERROR: The event measures match or are within the route measures.

MEASURE EXTENT OUT OF ROTE MEASURE RANGE: The event measures for the FromMeasure and ToMeasure fields (Measure fields for point events) are outside the route measures for that time slice.

PARTIAL MATCH FOR THE FROM-MEASURE: The event FromMeasure values are greater than the route FromMeasure values, i.e., if the route FromMeasure is 0 then the event FromMeasure is a negative value or the event has "slid" off the front of the route.

PARTIAL MATCH FOR THE TO-MEASURE: The event ToMeasure values are greater the route ToMeasure values, i.e., if the route ToMeasure is 1.0 then the event ToMeasure is 1.01 or the event has "slid" off the end of the route.

ROUTE LOCATION NOT FOUND: The event xy coordinates do not match the route xy coordinates. Typically this is caused by Esri's ArcGIS Roads & Highways software not cleaning up a route edit correctly.

ROUTE NOT FOUND: The event time slice does not match the route timeslice, i.e., the event is active and the route is not active. Typically this is caused by Esri's ArcGIS Roads & Highways software not cleaning up a route edit correctly.

ZERO LENGTH EXTENT: The event FromMeasure and ToMeasure values are the same, i.e., a point. Typically this is caused by Esri's ArcGIS Roads & Highways software not cleaning up a route edit correctly.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field LocError ▲

FIELD CreatedUser ►

- * ALIAS CreatedUser
- * DATA TYPE String
- * WIDTH 255
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

User name who created the event record.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field CreatedUser ▲

FIELD CreatedDate ►

- * ALIAS CreatedDate
- * DATA TYPE Date
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Date event record was created.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Dates vary.

Hide Field CreatedDate ▲

FIELD LastEditedUser ►

- * ALIAS LastEditedUser
- * DATA TYPE String
- * WIDTH 255
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

User name who last edited the event record.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field LastEditedUser ▲

FIELD GlobalID ►

- * ALIAS GlobalID
- * DATA TYPE GlobalID
- * WIDTH 38
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

A field of type UUID (Universal Unique Identifier) in which values are automatically assigned by the geodatabase when a row is created. The GlobalID field is necessary for maintaining object uniqueness across replicas. All feature classes and tables participating in one-way or two-way replication must contain the GlobalID field. This field is not editable and is automatically populated when it is added for existing data.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Values vary.

Hide Field GlobalID ▲

FIELD LastEditedDate ►

- * ALIAS LastEditedDate
- * DATA TYPE Date
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Most recent date the event record was edited.

DESCRIPTION SOURCE

NCDOT

DESCRIPTION OF VALUES

Dates vary.

Hide Field LastEditedDate ▲

FIELD Shape_Length ►

- * ALIAS Shape_Length
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0

- * SCALE 0
- * FIELD DESCRIPTION
Length of feature in internal units.
- * DESCRIPTION SOURCE
Esri
- * DESCRIPTION OF VALUES
Positive real numbers that are automatically generated.

[Hide Field Shape_Length ▲](#)

[Hide Details for object LRSE_FunctionalClass ▲](#)

[Hide Fields ▲](#)

Metadata Details ►

* METADATA LANGUAGE English (UNITED STATES)
METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset
SCOPE NAME * dataset

* LAST UPDATE 2022-12-05

ARCGIS METADATA PROPERTIES
METADATA FORMAT ArcGIS 1.0
STANDARD OR PROFILE USED TO EDIT METADATA ISO19139

CREATED IN ARCGIS FOR THE ITEM 2022-09-03 17:01:23
LAST MODIFIED IN ARCGIS FOR THE ITEM 2022-12-05 14:39:20

AUTOMATIC UPDATES
HAVE BEEN PERFORMED Yes
LAST UPDATE 2022-12-05 14:39:20

[Hide Metadata Details ▲](#)

Metadata Contacts ►

METADATA CONTACT
ORGANIZATION'S NAME North Carolina Department of Information Technology -Transportation, GIS Unit
CONTACT'S POSITION GIS Data and Services Consultant
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►
ADDRESS
TYPE physical
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CITY Raleigh
ADMINISTRATIVE AREA North Carolina
POSTAL CODE 27604
COUNTRY US
E-MAIL ADDRESS gishelp@ncdot.gov

HOURS OF SERVICE

9:00am - 5:00pm Monday - Friday

CONTACT INSTRUCTIONS

Please send an email with any issues, questions, or comments regarding the data. If it is an immediate need, indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY as needed

SCOPE OF THE UPDATES dataset

[Hide Metadata Maintenance ▲](#)

Metadata Constraints ►

CONSTRAINTS

LIMITATIONS OF USE

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

This data should be used for planning, maintenance, and decision-making support purposes only. It should be used only by those who fully understand the extents, limitations, and content of the data. This data should not be used for routing. The data should not be used in place of field survey or data collection efforts that are normally performed by licensed professionals and it should not replace any data collection efforts that are typically required as a part of detailed design and construction efforts.

SECURITY CONSTRAINTS

CLASSIFICATION unclassified

CLASSIFICATION SYSTEM None

LIMITATIONS OF USE

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[Hide Metadata Constraints ▲](#)

Thumbnail and Enclosures ►

THUMBNAIL

THUMBNAIL TYPE JPG

Hide Thumbnail and Enclosures ▲