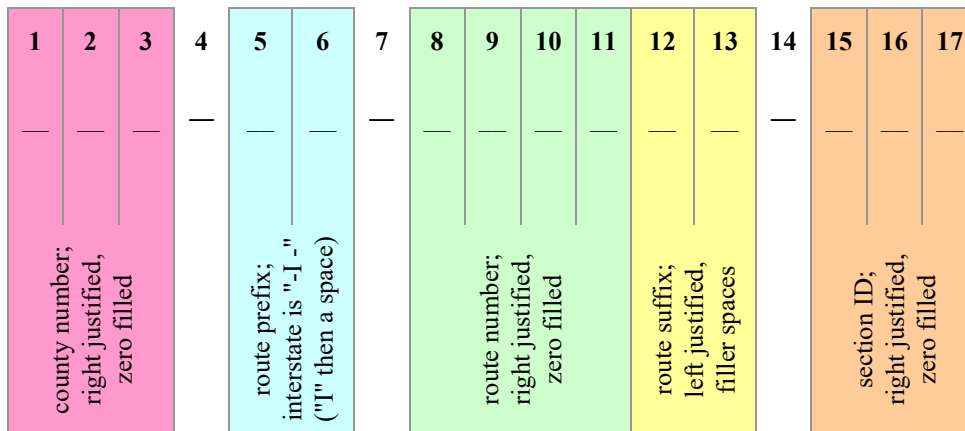# Kentucky Route and Milepoint representations.

Here is an overview of how KYTC populates its unique route IDs

Route ID:

The Route ID (in most HIS shapefiles it is the column RT_UNIQUE *not* LRS_ID) consists of 17 characters that signify a route in Kentucky. Route IDs are unique to a route *and* a county. That is, if a route crosses a county line, there will be a new route ID to represent that part of the route. The characters are laid out as follows:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
county number; right justified, zero filled			—	route prefix; interstate is "I - " ("I" then a space)		—	route number; right justified, zero filled				route suffix; left justified, filler spaces		—	section ID; right justified, zero filled		

The initial three characters represent the county number. If a road like an interstate crosses a county line, then the county ID will change, even if the route does not. This set of numbers is always zero filled (county # 8 will be represented as "008" and county # 37 will be represented as "037") and never truncated.

The fourth character is always a dash.

The fifth and sixth characters are the route prefix. If it is an Interstate, then it is "I " (an "I" followed by a space). The following prefixes are used in Kentucky:

AU: Audubon Parkway

BG: Bluegrass Parkway

CR: County Road

CS: City Street

EB: Edward T. Breathitt Parkway

FD: Federally owned route (national park, military base)

HR: Hal Rodgers Parkway

I : Interstate Highway (Always an "I" followed by a space)

IC: Inter-Agency Charge Road

JC: Julian M. Carroll Parkway

KY: Kentucky state-maintained road

> KY-9000 = Bert T Combs-Mountain Parkway

> KY-9009 = Bert T Combs-Mountain Parkway Extension

LA: Local Public Agency Road (Local parks, schools)

LN: Louie B Nunn Parkway

PR: Privately owned and maintained route open to public use

PS: Privately owned development (trailer park, private subdivision, recreational development, etc.) that is open to public use

PV: Private Drive that is not open to public use (factory entrance, driveway, etc.)

ST: State Agency Road

US: US signed highway

WK: Western Kentucky Parkway

WN: William H. Natcher Parkway

XX: Temporary route designation

<u>The seventh character is always a dash.</u>

<u>The eighth through eleventh characters are the road number.</u> Like the county, the road numbers are always zero-filled (60 becomes "0060" and 421 becomes "0421")

<u>The twelfth and thirteenth characters are the route suffix.</u> Most routes will *not* have a suffix. Where there is no suffix for a route, two spaces are used instead. The ones that do have a suffix are left justified, with one space filling in where applicable. ***(Meanings below only apply to State Maintained Routes)***

> A = Alternate

> B = Bypass

> C = Connector

> E = East

> EB = East Bypass

> EX = East Business

> S = Spur

T = Truck

W = West

WB = West Bypass

WX = West Business

X = Business

For example, US 31 W in Hardin County is represented as: 047-US-0031**W** -000

Notice the space after the W.

For the US 31 W Bypass, the route is represented as: 047-US-0031**WB**-000

If the route in question had no suffix, it would be represented as: 047-US-0031 -000

There would instead be two spaces after the 31. Most routes have no suffix and will have two spaces for the 12th and 13th characters.

The fourteenth character is always a dash.

The fifteenth through the seventeenth characters are the route section. If the section ID is "000", then the road is the cardinal mainline. *If* the road is split by direction in the Kentucky Highway Information System (HIS), with separate lines for each direction, then the non-cardinal direction will be represented by "010". For all other section IDs, the routes are associated with the mainline of another road in some way. A list of section ranges is listed below:

"000"	Mainline. If a road is not divided by direction (ie: no non-cardinal link) then the mainline will represent all directions of a road.
"001" to "009"	Non-cardinal couplets. Examples would be US 60 in Shelbyville where it splits into two separate one-way roads as well as US 25 in Lexington that splits into Main Street and Vine Streets.
"010"	Non-Cardinal side of divided highway.
"011" to "019"	Collector-Distributor Roads
"020" to "029"	Y intersections. Used for roads that fork into two or more roadways just before an intersection to facilitate easier turning or merging onto a road.
"030" to "069"	Crossovers or short roads that connect both sides of a divided highway.
"070" to "079"	Connectors.
"080" to "097"	Bays, Cul-de-sacs, spurs, frontage roads, etc.
"98"	Roadway Belonging to an Adjacent State - Mainline
"99"	Roadway Belonging to an Adjacent State - Non-Cardinal

"*01 to*10"   Rest areas, weigh stations, scenic views in conjunction with interstates and parkways. (Where * is between 1 and 9)

"*11 to *99"   Interchange Ramps (where * is between 1 and 9)

Milepoints:

Milepoints for a route are represented as a decimal number, calculated to three decimal places (thousandths of a mile) or just over 5 feet.

For interstate highways and state parkways, the 0.000 milepoint starts at the beginning of a route, whether it be at a state line or the beginning of the actual route, and continues to increase in the cardinal direction (usually north and/or east) across all county lines until it crosses another state border or ends. When a new route ID begins at a county line, the new route has a beginning milepoint equivalent to the maximum milepoint of the county it just crossed. Thus some interstate and parkway route IDs will not have a beginning milepoint of 0.000.

For all other routes, the 0.000 milepoint begins at a state or county boundary and increases in the cardinal direction until it reaches the end of the county. When a route crosses a county line, another route ID is generated with a beginning milepoint of 0.000.

When a road has a non-cardinal route associated with it, the non-cardinal route will have a beginning milepoint that is larger than the ending milepoint but the cardinal route will still have a normal beginning and ending milepoint.

Route Topology (feel free to skip this section if you are not versed in GIS):

All routes in HIS have a topology or inherent direction associated with them in the Highway Information System. This property is created when a route is entered into HIS and can be visualized when the route layer is opened in a GIS program.

For divided highways, topology is always in the direction of flow. A cardinal route's topology is always in the cardinal direction whereas a non-cardinal route's topology is always in the non-cardinal direction.

For other routes aside from dead ends, the topology is usually in the cardinal direction, unless the route begins from a "higher" signed route, in which case the topology is pointing *away* from the other route. An example would be a county road's topology always pointing away from a US or KY signed route and a KY.

A road's milepoints are always increasing in the direction of topology, which is why non-cardinal routes have beginning milepoints that are higher than their ending milepoints.

An example of road topology in HIS with the arrows representing the direction of topology:
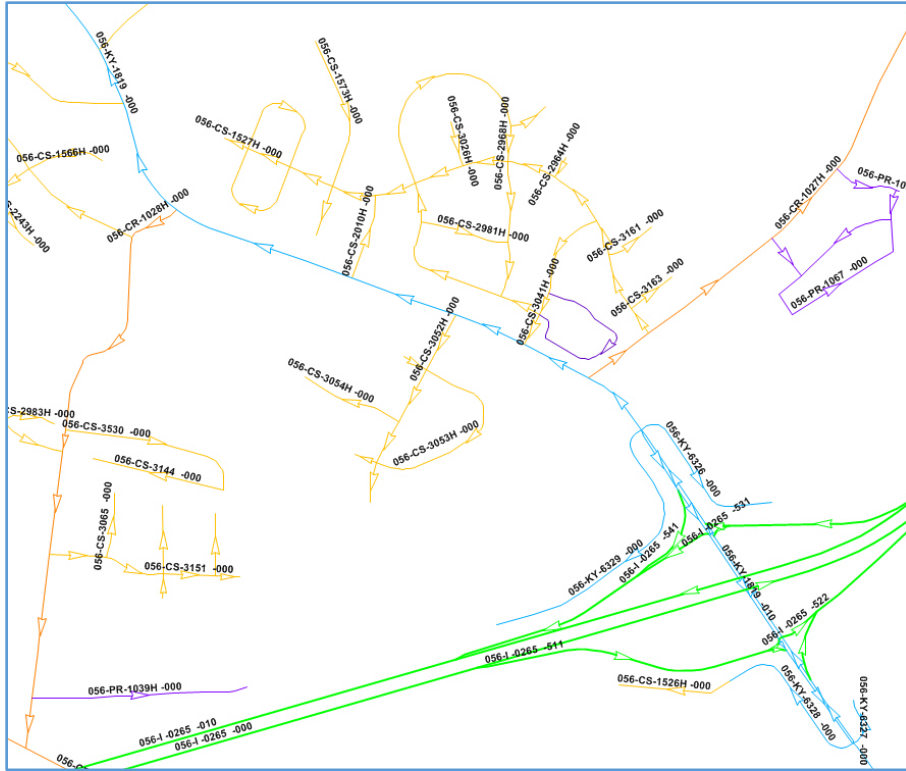
Gov_Level:

Government Level is a two-digit code that represents who has ownership and maintains a road. The codes are:

01	State Maintained Roads
02	County Maintained Roads
04	City Maintained Roads
11	State Park & State Forest Roads
12	Local Park or Forest Roads
21	Other State Agency Roads
25	Other Local Agency Roads
26	Private Roads
40	Other Public Instrumentality Roads
60	Other Federal Agency Roads
63	Bureau of Fish and Wildlife
64	U S Forest Service Roads
66	National Park Service Roads
70	Corps of Engineers Roads
74	Army Roads
88	Open, old road bed, undetermined owner
89	Open, new road bed, undetermined owner
98	Route belongs to adjacent state

99   Route belongs to adjacent state – Non Cardinal

Type_OP:

This is Type of Operation for a route or parts of a route. The codes are:

1   One-Way
2   Two-Way
D   Divided

Status:

This is the adoption status by the owning agency. The codes are:

ACCEPTED	Accepted by Owner
NOT ACCEPTED	Not Accepted by Owner
PENDING	Pending
UNKNOWN	Not Known at Current Time
O.O. PENDING	Pending Official Order
NOT OPEN	Road Exists but is not Open to Traffic

SurfType:

This is the Surface Type for a route or parts of a route. The codes are:

40   Soil, Gravel, or Stone
52   Asphalt
70   Concrete
80   Brick, Block, etc.

Local Key:

This is a randomly generated number that uniquely identifies each intersection-to-intersection centerline feature.