

Short ADOT ATIS Nomenclature

The following glossary of terms and values reflects the “Short ADOT” syntax developed as part of the NASB-34 project at ADOT. This 12-char nomenclature is supported by the Arizona Transportation Information System (ATIS).

This 12-character nomenclature works only on ADOT named roadways. Therefore it is advantageous only for database that DO NOT contain local system road records. It will not support local roads. Local roads must still be represented in 32-character ATIS Nomenclature. If you wish to use virtual markers, they would also require 32-character ATIS, at present.

Data items that are required to make a record or database geospatially presentable in map format are OnRoad and Milepost. Milepost is simply a real number that associates as a Marker and a positive offset. This “simplification” does lead to error because mileposts are sometimes absent or are not necessarily 5280 feet apart from each other.

These character definitions are as follows for the OnRoad field:

Table 1 – Short ADOT OnRoad Character String Definition

Characters	Description
1-2	Route System
2	Route Qualifier
3-5	Route Number (3-digit, 0-left packed)
6-10	Ramp Designation
11	CarriageWay
12	Road Qualifier

Char 1 – Route System

Character 1 of the Short ADOT ATIS nomenclature depicts the ownership (signage) of the road name. As a ADOT-signed road, Character 1 indicates which system (Interstate, U.S., or Arizona State Route) the road is signed to. Note that business loops adjacent to interstates are Arizona State Routes instead of Interstate routes.

Table 2 – Signed Route System

Char 3	Description
I	Interstate Highway System
U	U.S. Highway System
S	Arizona Highway System

Char 2 – Route System Qualifier

Character 2 contains the route system qualifier that designates spurs, temporary, truck, from mainline routes (which have Character 2 as null). The following table indicates the ATIS standard for state highway route qualifiers.

Table 3 – Signed Route Qualifier

Char 4	Description
A	Alternate
B	Business Route
L	Loop Route ¹
S	Spur
T	Truck
X	Temporary
Y	Wye Leg

Table Footnote:

¹ATIS recognizes only one Loop Route in all of Arizona. It is SL089 in Page. The 101, 202, and 303 are **not** loops in ATIS because the Signed Route Qualifier is not necessary to differentiate these routes from any other routes that are also numbered as 101, 202, or 303. If ATIS recognized the 101, 202, and 303 as loops, it would also logically have to recognize all of the Business Routes along the interstates as *loops* (which they are just as much as the 101, 202, and 303).

Char 3-5 – Route Number

Short ADOT ATIS allows for 3 characters to describe the primary identification label of a road.

Therefore, on primary ADOT highways, all route numbers are 3 digits long with zeroes used as placeholders for route numbers that are less than 100.

Char 6-10 – Ramp Designation

Short ADOT also accommodates a naming convention for freeway ramps, cross-overs, and frontage roads (see carriage ways below) that it owns/maintains. Such road names use either 4 or 5 digits.

All ADOT-owned ramps and frontage roads are identified in the field (as well as in the ATIS Roads coverage) by the green ramp-marker that looks like a milepost marker yet also contains a letter that schematically designates each individual ramp. Therefore, the G-ramp at Exit#189 on Interstate 40 would have an ATIS name of “I<sp>040189G”.

The first three characters of the ramp designation are the exit number of the ramp. The exit number is normally the value of the milepost prior to encountering the crossover of the exit.

The fourth character of the ramp is the ramp letter. Ramp letters are defined in an ADOT standard that has been in effect for many years. For example, the cardinal direction off ramp is always the “A” ramp while the non-cardinal direction on ramp is always the “G” ramp. Consult the standard for more information.

The fifth character of the ramp designation indicates normally a “1” or a “2” when there are more than two exits per mile.

Char 11 – Carriage Way

The carriageway allows for differentiation of directions of travel that are separated by a non-traversable barrier (dirt or raised median or barrier). Such is the case for freeways, frontage roads, and many urbanized roads that contain curbed medians. This is important for many reasons including the routing of traffic on an electronic network. Character 12 is null for the cardinal direction of travel (as is often the case with most undivided highways). The cardinal direction of travel is defined as follows.

Table 4 - Cardinal Direction on ATIS Roadways

Type of Road	Cardinality
State-maintained roads (mileposted)	Cardinal direction is the direction of increasing milepost, which is most often from south or west to north or east. However, there are several exceptions.

A standard table that catalogs information on cardinality of the State Highway System is available in the ATIS CD Reference Library. The possible values for Char 11 – Carriageway are listed in the following table.

Table 5 – CarriageWay Definitions

Way	Definition
Null	Mainline – Cardinal Direction
0	Mainline – Non-cardinal Direction
1	Frontage – Cardinal Direction
2	Frontage – non-Cardinal Direction

Char 12 – Road Qualifier

The original intent of Character 12 (char 32 in standard ATIS) was to allow a place for U-turns locations on divided highways to be recorded. In rural Arizona, these short segments don't have names because often there is not an intersecting roadway at these locations. Therefore, the Road Qualifier was intended to supply a bit of data that could be populated with distinct alpha-numeric characters so that a total of 36 (0-9 and A-Z) different qualifiers could be used for each name that is otherwise unique for the first 31 characters.

In 1997, the Road Qualifier placeholder became useful for a secondary purpose. It is now ALSO used to distinguish different sections of (for example) SB010 that are spread across the state.

Values of Road Qualifier are currently populated only where the *building of routes* in Arc/Info benefits (i.e. is made easier) from the attachment of a Road Qualifier. For example, S 085 has separate sections for the southbound from Gila Bend AND the northbound from Gila Bend portions of the route. However, U 180 has the same route characteristics for the portion leaving NW out of Flagstaff and the other portion leaving SE out of Holbrook.

Eventually, the ATIS geocoding mechanisms will contain fuzzy logic to keep users from having to understand the importance of character 12.

Examples

The following examples show how Short ADOT ATIS nomenclature can be deciphered:

	111	
123456789012		
I 010		Interstate 10 (EB)
I 010	0	Interstate 10 non-cardinal direction (WB)
SB040	6	SR-40B East bound couplet in Winslow
SB040	06	SR-40B West-bound couplet in Winslow
I 040189G		Interstate 40 G Ramp at Exit closest to Mile Marker 189
S 202001A1		State Loop 202 Exit #1A A-Ramp (as opposed to Exit #1B)