Office of Design

20D-102

Design Manual
Chapter 20
Project Automation
Information
Originally Issued: 09-02-16

OpenRoads Element Naming Conventions

Horizontal Alignments

Because information still is required to be written to the .GPK file for sheeting, there are restrictions on naming conventions for alignments that are sent to the .GPK file. When exporting a chain from a .DGN file to a .GPK file, there is no way to control the name of the parts of the chain (points, curves, spirals, etc.) beyond the name of the chain within OpenRoads. Chain elements are named by Geopak automatically as the chain name with an increasing numeric suffix.

> Geopak allows point names to be alphanumeric or numeric only. Numeric-alpha (123ABC) names cannot be used for chain names.

Chains exported back to a .GPK file must start with an alpha prefix. Alpha-numeric-alpha will cause errors and should not be used. Special characters cannot be used in naming of chains either. If a chain is improperly named, using the Export to Native (GPK) tool will fail.

All alphanumeric names in the GPK file are limited to 15 characters. To allow suffixes, OpenRoads will attach to chain elements' names when storing a chain into the GPK file. Alignment names in OpenRoads should be no longer than 12 alphanumeric characters in length. See Table 1 below for examples of horizontal chain naming.

Table 1: Horizontal Alignment Naming.

alignment type	naming convention	examples
Mainline	ML*RouteNumber*	ML080, ML520, ML006
Side Road	SR*SideRoadName*	SR180 for 180th St, SR100 for Iowa 100, SRD35 for Co. Rd. D35, SRFIRST for 1st street
Ramps	RP*RampDesignationCrossingRouteName*	RPA100 for Ramp A of SR100, RPG080 for Ramp G of SR080
Dike/Levy	DK*AdjacentStation*	DK150 for dike adjacent to ML at station 150+00
Channel	CH*CrossingStation*	CH2500 for channel crossing ML at station 2500+00
Entrance	ENT*SideCrossingEvenStation*	ENTL2500 for entrance on Left side at Station 2500+25
Detour	DET*DetourNumber*	DET1, DET2, DET35040, etc.
Edge Returns	RET*Quadrant*Side*RoadName*	RETA100, ***See Figure 1 for Quadrant Naming***
Collector Distributor Road	CDR*StartingStation*	CDR1500, starts at Sta. 1500+00 of the ML roadway.
Walls	WALL*Description*	WALLNoise1, WALLMSE1,WALLRetain1
Survey Chain	SUR*chainName*	SURML080, SURSR100, etc.
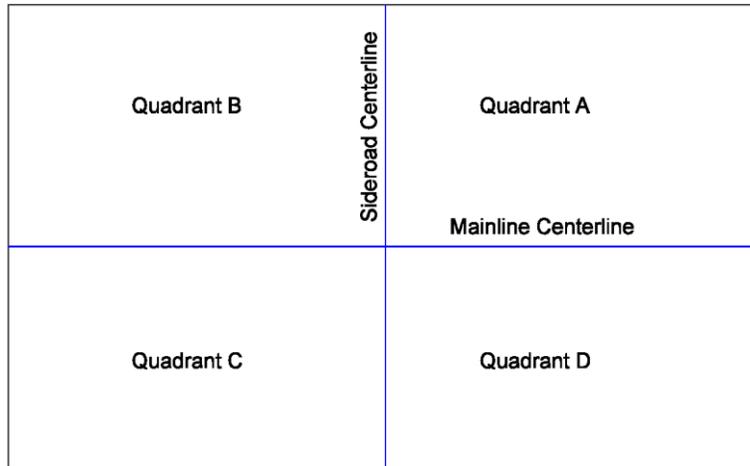
Figure 1: Return quadrant naming conventions.

Vertical Geometry

Name vertical geometry for centerline profiles the same as the chain (the exception being ditch grades). Geopak does not store vertical geometry the same as horizontal geometry (no elements with separate naming restrictions). See Table 2 for examples. When developing alternatives and split profiles, hyphens and underbars ("-" and "_") or alpha-numeric-alpha naming can be used. However, the best option is to name the ultimately designed vertical profile the same as the chain with which it is associated. There is no need with OpenRoads to store an existing profile. Tools are available to draw the ground profile without the need to store geometry.

Table 2: Vertical Alignment Naming.

profile type	naming convention	examples
Proposed chain alignment	Chain Name	ML080, SR180, RPA180, ENTL2500, RETA180
Ditch Grade	DG*SideEvenStationBeginning*	DGL1500, DRG1500, DGM1500. Left, Right, Median respectively.
Benching	BNCH*SideEvenStationBeginning*	BNCHL1500, BNCHR1500

Chronology of Changes to Design Manual Section:

020D-102   OpenRoads Element Naming Conventions

9/2/2016   NEW
               New