MONTANA
MDT★
DEPARTMENT OF TRANSPORTATION

Montana Department of Transportation

2701 Prospect
PO Box 201001
Helena MT 59620-1001

Memorandum: **Geopak Point Numbering**

To: MDT CADD Users

From: MDT Cadd Management Team
                John Pirre
                John(JJ) Walsh
                Bob Mullenix

Effective: 4-03-2008
Revised: 9-19-2011

Subject: <u>Storing Points with Geopak</u>

Objective: The objective is to retain enough required points for each area and eliminate
                duplicate numbering as this causes conflict when GPK files are shared
                between workgroups.

MDT has adopted the following point naming convention for storing points in Geopak GPK files
to help expedite the information to the construction crews. Below is a list of point place holders
for each work group utilizing Geopak to store points during the design process.

<u>Min. req. pnts.</u>		<u>Proposed range</u>
2000	Cadastral Survey	1-1999
1000	Road Design	2000-2999
4000	R/W	3000-6999
1000	Placeholder for Traffic	7000-7999
1000	Placeholder for HYD	8000-8999
1000	Placeholder for Bridge	9000-9999
10,000	R/W parcels	10,000-19,999
1000	Placeholder for GEOTECH	20,000-20,999
5000	Placeholder for ENVIRO.	21,000-25,999
	Unused placeholder	26,000-49,999
500,000	Pre-Survey (includes Constr.)	50,000-to end

For complex projects that have multiple design chains such as urban projects users may also
use an Alpha numeric point convention if they wish. This assists the user in identifying what
chain the points belong to when reviewing GPK points. At this time it is at the user's
discretion to determine the alpha characters for their point names. As a recommendation and
for consistency, users can use the Chain Name for the alpha character along with a point
number for their workgroup placeholder listed above.

Example: (ChainName)(PointNumber)
DESIGN2000

<u>Note:</u> Geopak Point names are limited to 15 Characters

When using an alpha Numeric point name other than the chain name users must be aware of any survey points that may have already used an alpha numeric point name for their project. Users need to be sure not to use single or double Alpha characters such as A, AA etc. as this format is already used by survey personal for control points.

Below is a list of the current Survey Alpha Numeric points that are encountered.

1) MDT Control points are currently numbered A+4 digit control number (A5764) thru ZZ + 4 digit control number (ZZ5764).
2) Existing old MDT Control that is still being used (milepost + alpha) that we convert to alpha-numeric.
3) NGS Benchmarks are all over the board E.g. coppweld, 1JEB, W270.
4) Photogrammetry uses 600-799 + 4 digit control number (6045764).

Please refer to the MDT Geopak User's Manual for procedures to store points with Geopak.