Resource Annotation Creation Procedure and Specifications

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General Text Placement Guidelines

Cartographic & Annotation Guidelines

The following guide provides a general list of acknowledged cartographic conventions to be applied when naming features on the 1:10,000 Toponomy.

The desired text placement preferences are listed in numerical order in each section (e.g. 'Orientation/Angles'). The most preferred option for text placement will be listed first; if that placement option is not possible, use the next alternative position/placement rule in the list. The numbered lists are organized in order of descending preference, listing the next preferred placement option where the previous option is not available. Use the placement option numbered '1' wherever possible.

It may not be possible to satisfy all the rules perfectly, but the best solution will balance conflicting objectives, i.e. the need to associate name with feature vs. need to avoid overlap of contents.

General Text Placement Principles

- Names should always be placed so that it is clear which feature they are labeling. The map reader should never have to question which feature the label applies to.
- Don't place text in a position that obscures the features lying beneath.
- Text and symbols should not touch.

Orientation/Angles

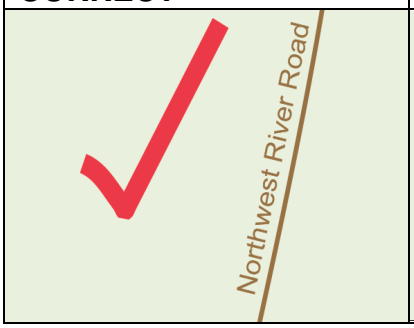
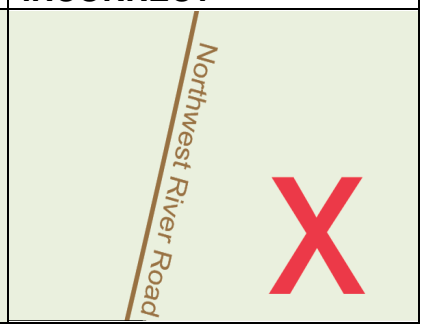
Horizontal text placement is the cartographic standard. It is the first position the eye reverts to/recognizes when reading. Map names, numbers and labels should therefore be horizontal (i.e., parallel with the neatline) wherever possible. (Note: for our purposes the definition of horizontal also includes placement parallel to a line of latitude.)

1. Place text horizontally. A non-horizontal position should only be considered if space/features do not allow for horizontal placement.

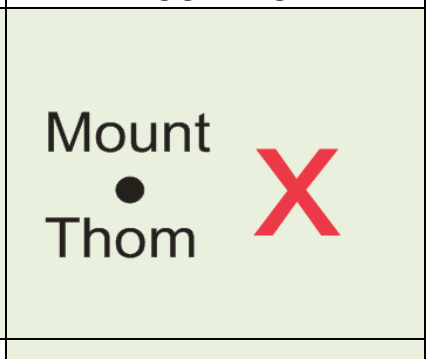
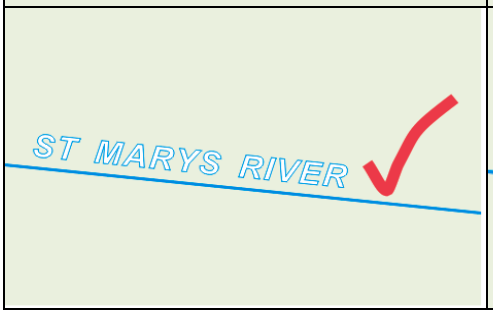
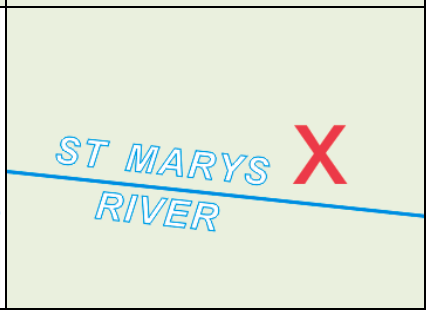
2. **If text cannot be placed horizontally, place at an angle so that the text is still read from left to right.** The eye reads left to right in the English language, so maintain that orientation at all times, regardless of how steep that angle may be. Do not let the text fall backwards form the perpendicular (see example below).

3. **When the object you are labeling is angled e.g. a river, mimic the angle of that feature for the label (see** example **below).**

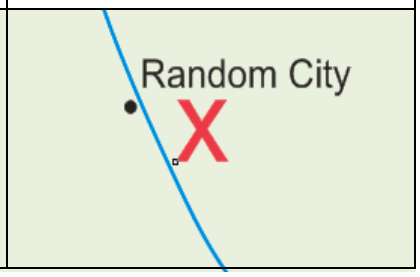
4. Cartographic text should never read straight up or straight down, nor should it ever be upside down (where the text string reads from right to left). The only exception to vertically-reading text would be grid and graticule text in the map surround.

CORRECT	INCORRECT
	

5. Do not split text above and below a feature: if the label must be stacked, place it entirely above or below the feature (see example below):

CORRECT	INCORRECT
	
	

6. Keep features and their labels from being separated by other features, e.g. a city on the west side of a river: the label should also be on the west side of the river, not the east (see example below):

CORRECT	INCORRECT
	

Placement Location by Feature Type

The following placement rules for points, lines and polygons can be set by opening the layer properties of one of the feature classes inside the Anno_Source group layer, selecting the Labels tab, followed by the Placement Properties tab.

1. Wherever possible do not cross a change in features (i.e. coastline), background color, tint, pattern, or tone. Water feature labels should be placed in the water feature they refer to, and not on land. Names should always be placed so that they do not disrupt other map details.

2. In those instances where the above is not possible, the name must be placed to cause a minimum of interruption/loss of detail. If a name must cross a line, there is much less disruption if it crosses the line at a right angle rather than at an oblique angle. Use oblique angles only when there is no alternative OR when you are placing the text at an angle that mimics the feature's angle.

3. In those rare instances where names must be placed to cross each other, the two names must be clearly differentiated. Use a visually obvious change in text size, color or font (see Annotation Specification Spreadsheet).

Points

1. Use the hierarchy below for labeling point features, with 1 being the most desirable label location and 8 being the leas desireble:

   3 5 1

   8 ☻ 7

   4 6 2

2. Spot heights will be generated with the other elevation data. In the event you need to move the label of the spot height marker (never move the symbol itself), use the diagram below for determining the text placement hierarchy:

   4 1 3

   8 ☻ 7

   6 2 5

3. Place labels at a consistent offset (e.g.1mm) from the point feature, regardless of which position the label is in.

4. Centre the water elevation text above/below the water body text. Show only one decimal place (round down if necessary).

Lines

1. Place the label close to and above the feature (place label below only when space does not permit otherwise).
2. Lengthy features should be named more than once rather than relying on excessive letter or word spacing.
3. Linear features are often not horizontal, so text should be placed either at an angle or curve to reflect the orientation and extent of that feature.
4. When angling/curving text, place parallel to a straight section or curve – follow the shape and overall trend of that feature across the sheet.

Add river names along smooth 'S' or 'C' curves. Look at the entire length of each river per sheet and determine the best overall curve and place the text accordingly (see example below).

5. If a linear feature is classified as a 7M or 7L, (Which will be explained in the Annotation Generation section) label the feature more than once as opposed to stretching the name to fit the feature.
6. Maintain a consistent offset from the line feature, i.e. 1mm.

Polygons

7. Centre the label within the polygon feature it refers to (ignoring spines) if the polygon is large enough. Consider abbreviating the feature name to make it fit i.e. "Long L" instead of "Long Lake"; or "Random I" instead of "Random Island. (See *Appendix B – Road Abbreviations* for approved abbreviations)
8. If the polygon is not large enough to contain the name, place the text next to the polygon. Ensure it is placed n in a position that clearly indicates the feature that the label belongs to. Use the text placement hierarchy diagram in Points # 1 to position the annotation.
9. If a land feature Polygon is classified as 7L you can place 2 labels within the polygon.
10. Include entire string on one horizontal line when possible.
11. If space does not permit labeling on a horizontal line, **stack and centre** the **OR** have the single line of text **follow a curve** that reflects the shape of the polygon.
12. When labeling within the feature, justify the text *left* if the text appears to the *right* of the feature (and vice versa).

13. Do not place names in other counties or administrative regions unless there is no other alternative.

14. When a group of lakes or islands have one representative name, use caps and double spacing to identify the features as a group.

15. When water level text is part of the Annotation Spec, offset water level text from the water poly text.

Text Content

Include the entire word wherever possible (e.g. use “Road” instead of “Rd”). Abbreviate only when absolutely necessary (when space does not permit the use of the full word). See Appendix A for approved abbreviations.

Apostrophes are no longer used in Nova Scotia names, with the following exceptions:

- Clark’s Harbour
- St Peter’s
- District of St Mary’s

Text Sizing

In the Style Set for points, lines and polygons, three different character sizes may be offered for the same feature code. To match the appropriate text size with the appropriate feature code, use the following measuring system:

- ≤½ sheet use 7L
- ≤¼ sheet use 7M
- ≤⅛ sheet use 7S

For Gazetteer Points, refer to the size of the boundary being labeled.

All NSRN, Wa_Elev, LF_Line and LF_Spot Annotation will be classified with 70 (e.g. NSRN70) since all their features will be classified with the same character sizes.

Appendix B

Guide to Abbreviating Road Annotation

Road Abbreviations

ROAD TYPE (abbreviated)	ROAD TYPE (original)	ORIGIN
Allee	Allee	French
Alley	Alley	English
Ave	Avenue	English
Blvd	Boulevard	English
Bypass	By-Pass	English
Bypass	Bypass	English
Cercle	Cercle	French
Chemin	Chemin	French
Cir	Circle	English
Close	Close	English
Crt	Court	English
Cres	Crescent	English
Crois	Croissant	French
Dr	Drive	English
Lane	Lane	English
Loop	Loop	English
Pky	Parkway	English
Pl	Place	English
Rd	Road	English
Row	Row	English
Rue	Rue	French
Ruel	Ruelle	French
Run	Run	English
St	Street	English
Terr	Terrace	English
Tsse	Terrasse	French
Way	Way	English
Abbey	Abbey	English
Acres	Acres	English
Aut	Autoroute	French
Bay	Bay	English
Beach	Beach	English
Bend	Bend	English
Bl	Bluff	English
Br	Branch	English
Campus	Campus	English

ROAD TYPE (abbreviated)	ROAD TYPE (original)	ORIGIN
Cape	Cape	English
Carre	Carre	French
Carref	Carrefour	French
Ctr	Centre	English
Chase	Chase	English
Circuit	Circuit	English
Hghlds	Highlands	English
Hwy	Highway	English
Hill	Hill	English
Hollow	Hollow	English
Ile	Ile	French
Common	Common	English
Concess	Concession	English
Conn	Connector	English
Crnrs	Corners	English
Cote	Cote	French
Cove	Cove	English
Cross	Cross	English
Crossrd	Cross Road	English
Crossng	Crossing	English
Crsover	Crossover	English
Cds	Cul-De-Sac	English
Dale	Dale	English
Dell	Dell	English
Divers	Diversion	English
Downs	Downs	English
Eastbnd	East Bound	English
East	East	English
Exch	Echangue	French
End	End	English
Esp	Esplanade	French
Est	Estate	English
Ests	Estates	English
Exit	Exit	English
Expy	Expressway	English
Exten	Extension	English
Farm	Farm	English
Field	Field	English
Forest	Forest	English
Freeway	Freeway	English
Gdn	Garden	English
Gdns	Gardens	English
Gate	Gate	English
Glade	Glade	English
Glen	Glen	English
Green	Green	English

ROAD TYPE (abbreviated)	ROAD TYPE (original)	ORIGIN
Grnd	Ground	English
Grnds	Grounds	English
Grove	Grove	English
Harbr	Harbour	English
Haven	Haven	English
Hts	Heights	English
Hdwy	Hideway	English
Ridge	Ridge	English
Rgtaway	Right-A Way	English
Rise	Rise	English
Rdfrk	Road Fork	English
R-pt	Rond-point	English
Impasse	Impasse	French
Intchg	Interchange	English
Intrv	Intervale	French
Island	Island	English
Jnctn	Junction	English
Key	Key	English
Knoll	Knoll	English
Landing	Landing	English
Lmts	Limits	English
Link	Link	English
Lnkwy	Linkway	English
Lkout	Lookout	English
Mall	Mall	English
Manor	Manor	English
Maze	Maze	English
Meadow	Meadow	English
MEws	Mews	English
Mnte	Montee	French
Moor	Moor	English
Mount	Mount	English
Mtn	Mountain	English
North	North	English
Northbd	North Bound	English
Oldrte	Old Route	English
Orch	Orchard	English
Other	Other	English
Parade	Parade	English
Parc	Parc	French
Park	Park	English
Pass	Pass	English
Passage	Passage	English
Path	Path	English
Ptway	Pathway	English
Pike	Pike	English

ROAD TYPE (abbreviated)	ROAD TYPE (original)	ORIGIN
Pines	Pines	English
Plaza	Plaza	English
Pt	Point	English
Port	Port	English
Pvt	Private	English
Pr	Promenade	French
Quay	Quay	English
Ramp	Ramp	English
Rg	Range	English
Rte	Route	English
Sent	Sentier	French
South	South	English
Southbd	South Bound	English
Spur	Spur	English
Sq	Square	English
Subdiv	Subdivision	English
Thicket	Thicket	English
Twnln	Townline	English
Trail	Trail	English
Trunk	Trunk	English
Trnabt	Turnabout	English
Vale	Vale	French
Via	Via	English
View	View	English
Village	Village	English
Vista	Vista	English
Walk	Walk	English
West	West	English
Westbd	West Bound	English
Wharf	Wharf	English
Wood	Wood	English
Woods	Woods	English
Wynd	Wynd	English
Cnr	Corner	English
Wa	Water Access	English

Appendix C

Guide to English & French Representation of Names

Pan-Canadian & Bilingual Names

All Federal (Historic Sites, Parks, Sanctuaries, Military and Indian Reserves) and Pan-Canadian names should include both the English and French versions.

Designated Pan-Canadian Names for Nova Scotia

Cabot Strait	Détroit de Cabot
Cape Breton Island	Île du Cap - Breton
Bay of Fundy	Baie de Fundy
Northumberland Strait	Détroit de Northumberland
Sable Island	Île de Sable
Gulf of St Lawrence	Golfe du Saint - Laurent
Atlantic Ocean	Océan Atlantique

Canadian Forces Base Names

CFS SHELBURNE	SFC SHELBURNE
CANADIAN FORCES STATION SHELBURNE	STATION DES FORCES CANADIENNES SHELBURNE
CFB HALIFAX	BFC HALIFAX
CANADIAN FORCES BASE HALIFAX	BASE DES FORCES CANADIENNES HALIFAX

Indian Reserves

Use one occurrence of the name to represent both English and French (bilingual).
e.g. PONHOOK LAKE 10

National Historic Sites

ST PETERS NATIONAL HISTORIC SITE OF CANADA
LIEU HISTORIQUE NATIONAL DU CANADA ST PETERS

HALIFAX CITADEL NATIONAL HISTORIC SITE OF CANADA
LIEU HISTORIQUE NATIONAL DU CANADA DE LA CITADELLE-D'HALIFAX

KEJIMKUJIK NATIONAL PARK OF CANADA
PARC NATIONAL DU CANADA KEJIMKUJIK

KEJIMKUJIK NATIONAL HISTORIC SITE OF CANADA
LIEU HISTORIQUE NATIONAL DU CANADA KEJIMKUJIK

KEJIMKUJIK NATIONAL PARK SEASIDE ADJUNCT
ANNEXE CÔTIÈRE DU PARC NATIONAL KEJIMKUJIK

Appendix D

Guide to Labeling Counties & District Municipalities

County & District Municipality Names

The features codes used for these labels are DLBNCO7S/M/L (County), DLBNMU7S/M/L (Municipal).

1. Position Geographic County text string first, followed by the District Municipality.

   Guysborough County – Guysborough District Municipality

2. Enter annotation as two text strings above the county boundary line if a single string will not fit in the space available.

   Guysborough County
   Guysborough District Municipality

3. Use abbreviations *only if* the full name will not fit in the space available.

   Guysborough Co
   Guysborough Dist Mun

County and Municipality Names

Shelburne County – Barrington District Municipality
Shelburne County – Shelburne District Municipality
Barrington District Municipality
Shelburne District Municipality

Queens County – Queens Region Municipality
Halifax County – Halifax Regional Municipality
Cape Breton County – Cape Breton Regional Municipality

Lunenburg County – Lunenburg District Municipality
Lunenburg County – Chester District Municipality
Lunenburg District Municipality
Chester District Municipality

Guysborough County – Guysborough District Municipality
Guysborough County – St Marys District Municipality
Guysborough District Municipality
St Mary's Mary's District Municipality

Antigonish County – Antigonish County Municipality
Pictou County – Pictou County Municipality
Cumberland County – Cumberland County Municipality

Colchester County – Colchester County Municipality

Hants County - East Hants District Municipality
Hants County - West Hants District Municipality
East Hants District Municipality
West Hants District Municipality

Kings County – Kings County Municipality
Annapolis County – Annapolis County Municipality

Digby County - Digby District Municipality
Digby County - Clare District Municipality

Digby District Municipality
Clare District Municipality

Yarmouth County – Yarmouth District Municipality
Yarmouth County – Argyle District Municipality
Yarmouth District Municipality
Argyle District Municipality

Inverness County Municipality
Victoria County Municipality
Richmond County Municipality

Use DLBNMU7S for naming Town Limits also. We will be adding the names for these boundaries, such as Lockeport Limits and Antigonish Limits.

Appendix E

Guide to Getting Started Using Arc 9.1

Getting Started

1. Open one of the mxd's and save the mxd using the geoname of the sheet you are currently working on, e.g. bzldmk_Anno.mxd.
2. Open the Data Frame Properties, go to the Data Frame tab and turn off the Enable Clip to shape option.
3. Open the layer properties of the 10K_Index feature class, go to the Definition Query tab and paste the new geoname into the query e.g. [Nad83] = 'bzldmk'.
4. Open the attribute table of the Ten_Master_Index shapefile and select the one feature.
5. Open the Selection tab and select Zoom to Selected Features.
6. Open the Data Frame Properties; go to the Data Frame tab, open the Specify Shape option, select Ten_Master_Index and press OK.
7. Turn on the Enable Clip to shape option.
8. Go to View, Bookmarks, Create; and paste the geoname of the sheet you are currently working on. (When you want to zoom to the extent of the sheet you are working on you can go to View, Bookmarks and select the geoname of the sheet you are working on).
9. Remove all the data from the Data_Ortho and Data_Vector group layers.
10. For the Data_Vector group layer; add all the vector data for the sheet you are currently working on.
11. For the Data_Ortho group layer; add lf_spot, nshn_line, lf_line, wa_body, wa_poly and the Ortho for the sheet you are currently working on (Move the Ortho to the bottom of the group layer).
12. Refer to the original mxd, bzldmk_Anno.mxd, for the order of the feature classes inside their respective group layers.
13. Symbolize the Ortho data using 10_Ortho.style inside; Style_Set/Features/Ortho.
14. Symbolize the Vector data using 10K_Vector.style inside; Style_Set/Features/Vector.

Appendix F

Guide to Creating Points From Features Using Arc 9.1

Feature to Point

1. Inside the Arc Toolbox Select the Index tab and open the Feature to Point Tool.
2. Select bl_poly as the Input Feature.
3. Name the output; bl_poly_cartographic and place it in the same location as bl_poly.
4. Open the attribute table of bl_poly_cartographic.
5. Delete all features with a Feat_Code of BLDG4#.
6. Open the attribute table of bl_poly_cartographic.
7. Go to the Options tab and Select by Attributes.
8. Select a Feature based on Feat_Code, e.g. BLCH40.
9. Right click the Feat_Code field and Calculate Values, e.g. BLCH80.
10. Repeat Steps 6 – 9 for each Feat_Code so that all features are changed from 4# to 80 to resemble a point feature in the style set.
11. Repeat steps 1 – 10 for da_poly (For step 6 delete the following features; DAPA4#, DAPACP4# AND DASA4#).
12. Symbolize both the bl & da cartographic points using the style set, 10K_Vector.style inside; Style_Set\Features\Vector.

Appendix G

Guide to Generating Annotation Using Arc 9.1

Annotation Generation

1. Remove the annotation feature classes from the Annotation_Ortho and Annotation_Vector group layers.

2. Right click one of the feature classes inside the Anno_Source group layer and select Label features. Repeat this for the 9 feature class inside the Anno_Source group layer, which include;

    - **LF_Spot** (Spot Heights)
    - **Gazetteer** (Indian Reserves, Military Reserves and Place Names)
    - **NSRN** (Street Names)
    - **LF_Line** (Contour Numbers)
    - **Topo_Line** (Hydrography)
    - **Culture_Poly** (Managed Areas, Protected Areas, Reserves and Parks)
    - **Topo_Poly** (Hydrography and Land Features)
    - **Wa_Elev** (Water Elevations)
    - **Coastal_Poly** (Major Water Bodies, e.g. Atlantic Ocean)

3. Right click one of the feature classes inside the Anno Source group layer, select Convert Labels to Annotation and select the following options;

    - Store Annotation in a Database.
    - Create Annotation for Features in current extent.
    - Turn off Convert unplaced labels to unplaced annotation.
    - Add the geoname to the annotation feature class e.g. bzoumk_GazetteerAnno.

4. Place the annotation feature classes inside the Annotation_Ortho group layer. (Repeat step 3 for the 9 feature classes inside the Anno Source group layer and place the annotation feature classes in the same order as the feature classes inside the Anno_Source group layer).

5. Some feature classes may have no annotation inside of them, but we are going to generate empty annotation feature classes in case any features are added in the future.

Adding Fields and Calculating Values

1. Open the attribute table of one of the annotation feature classes.

2. Go to the Options Tab and select Add field.

3. For the Type select Text, for the Name type in FCODE and use the defaults for the remaining options.

4. Add the following fields to the 9 annotation feature classes using the same method described in steps 1 - 3 and calculate the values using the following methods;

    - **FCODE** (Refer to Appendix A *Text Sizing* and the Style Set for the appropriate FCODE)
    - **SOURCE** (The feature class you are currently working on e.g. NSRN)
    - **LABEL_STATUS** (Calculate all values as Ortho)
    - **GEONAME** (Geoname of the sheet you are currently working on)

Symbolizing Annotation

1. Select Tools, Styles and Style Manager.
2. Select Styles, Add; select 10K_Anno_Ortho.style inside; Style_Set\Anno\Ortho and close the Style Manager.
3. Start an Editing session on the Annotation feature classes.
4. Open the attribute table of one of the annotation feature classes inside the Annotation_Ortho group layer, e.g. Geoname_NSRNAnno.
5. Right click the FCODE field, Sort Ascending and select all the features with the same FCODE.
6. Close the attribute table and right click an individual piece of annotation using the Edit Annotation Tool on the Annotation Toolbar and select Attributes.
7. In the left column that lists the selected features, select Geoname_NSRNAnno at the top of the list.
8. Select the Symbol tab and scroll down to select the corresponding FCODE; press OK followed by Apply.
9. Repeat steps 4 – 8 for all the FCODE's inside each of the 9 annotation feature classes.
10. Once all the annotation is symbolized, open the attribute table of one of the 9 annotation feature classes, e.g. Geoname_NSRNAnno and select all features.
11. On the Editor Toolbar; select the annotation feature class you are currently working on, in this case Geoname_NSRNAnno.
12. Select Edit, Copy followed by Edit, Paste.
13. Inside the attribute table for Geoname_NSRNAnno Calculate the values for the LABEL_STATUS field as "Vector" for the selected features.
14. Repeat steps 10 – 13 for the 9 annotation feature classes inside the Annotation_Ortho group layer.
15. Open the layer properties for one of the annotation feature classes, go to the Definition Query Tab and apply a definition query of [Label_Status] = 'Ortho'.
16. Repeat step 15 for the 9 annotation feature classes inside the Annotation_Ortho group layer.
17. Select the 9 annotation feature classes inside the group layer Annotation_Ortho and copy then paste them into the Annotation_Vector group layer.
18. Repeat step 15 for the 9 annotation feature classes inside the group layer Annotation_Vector, but apply a definition query of [Label_Status] = 'Vector'.
19. Repeat steps 1 – 8 for the annotation feature classes inside the Annotation_Vector group layer. (For step 2 add 10K_Anno_Vector.style inside; Style_Set\Anno\Vector).

Appendix H

Guide to Annotation Placement Using Arc 9.1

Annotation Placement

1. Turn off the group layer named “Ortho” and Turn on the group layer named “Vector”.
2. Start an Editing Session on the Annotation feature classes inside the Annotation_Vector Group Layer (Make sure only the vector annotation can be selected by selecting the Selection tab in the table of contents and turning off all the other feature classes).
3. Refer to the Sample plot along with Appendix A - D when placing the annotation.
4. For the NSRN anno features; place the annotation above the road for the Vector version.
5. Frequently Save Edits while placing the annotation and when all the vector annotation is placed Stop Editing.
6. Turn off the group layer named “Vector” and Turn on the group layer named “Ortho”.
7. Start an Editing Session on the Annotation feature classes inside the Annotatio_Ortho Group Layer. (Make sure only the Ortho Annotation can be selected by selecting the Selection tab in the table of contents and turning off all the other feature classes).
8. Repeat step 4 for the Ortho Annotation.
9. For the NSRN anno features; place the annotation above the road for the Ortho version.

Curving Annotation

1. While you are editing; select the Edit Annotation tool on the Annotation toolbar.
2. With the annotation selected; right click on this piece of annotation and select Curvature then Curved.
3. Right click on this piece of annotation again; select Edit Baseline sketch **OR** double click the piece of selected annotation and now you can edit the nodes to adjust the curvature of the annotation.
4. When you are finished; right click and select Finish Baseline Sketch **OR** double click the selected piece of annotation again.

Copying Annotation

1. Select the piece of annotation you want to copy.
2. On the Editor Toolbar, select the Target dropdown and select the appropriate Feature Class e.g. Geoname_NSRNAnno if you want to copy a street name.
3. Now select Edit Copy then Edit Paste. A copy will be made on top of the selected feature, so you can now move this feature to the appropriate location.