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CanMap® RouteLogistics
User Manual

Version 2007.3

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really smart spatial solutions™

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About DMTI Spatial™

DMTI Spatial Inc. is Canada's leading spatial solutions provider. We enable users to understand their customers, optimize resources, realize opportunities, maximize profitability and make more informed decisions through accurate products and innovative thinking.

DMTI Spatial publishes precision built street map, rail and routing data (CanMap®), a detailed water layer, and innovative geocoding and address management software (GeoPinpoint™). In addition, DMTI Spatial publishes a full range of positionally accurate geospatial data products including: enhanced points of interest (EPOI), census data and boundaries, postal geography, topographic maps, and US mapping data. As part of a complete business geographic solution, DMTI Spatial offers a wide range of GIS services, consulting, and software training.

Established in 1994, DMTI Spatial is committed to setting the standard within the GIS industry for precision built spatial data and geocoding software products.

At DMTI Spatial, we believe that our true strength comes from working closely with our customers and providing innovative solutions to meet their strategic business objectives. As Canada's premier spatial solutions provider we pride ourselves with having worked with North America's leading organizations to support their mission critical applications.

DMTI Spatial works with large and small organizations representative of a wide variety of industries:

- Agriculture
- Banking/Finance
- Consulting
- Education
- Emergency Services
- Engineering
- Environmental
- Forestry
- Government
- Health
- High Technology
- Insurance
- Manufacturing
- Media
- Mining
- Real Estate
- Retail
- Telecommunications
- Transportation
- Utilities

We are a member of the ESRI Canada Business Partner Program, and winner of the 2001 ESRI Worldwide New Business Partner of the Year Award and the 2005 ESRI Foundation Partner of the Year Award. We are a strategic business partner of MapInfo and winner of the Markham Board of Trade 2000 Award for Entrepreneurship and Innovation. Recipient of The Association of Canadian Map Libraries and Archives (ACMLA) 2002 Certificate of Appreciation.

ESRI Canada Business Partner

MapInfo® Business Partner

Really Smart Spatial Solutions™

Through the application of its products and services, DMTI Spatial has been involved with projects such as: location-based services, logistics planning, emergency dispatch, facilities management, data management, customer care, address management, land base development in support of network planning, and marketing/demographic analysis applications.

DMTI Spatial can provide all of the components necessary for the acquisition, implementation, operation and maintenance of a successful GIS system within companies of all sizes. Through its product and service offering, DMTI Spatial can provide users with 5 key components:

1. Accurate, detailed and compatible data
2. Comprehensive maintenance program
3. GIS software
4. Consulting and services
5. Software training

DMTI Spatial™ Product & Service Portfolio

DMTI Spatial's product & service offering includes:

CanMap® - *Digital Map Data for Canada*
- CanMap® Streetfiles
- CanMap® RouteLogistics
- CanMap® Rail
- CanMap® Major Roads and Highways
- CanMap® Parks & Recreation
- CanMap® Water

Satellite Imagery
- **Satellite StreetView™**

Municipal Amalgamations
- CanMap® Municipality Amalgamation File (MAF)

Business & Recreational Points of Interest
- Enhanced Points Of Interest (EPOI)

GeoPinpoint™ Suite
- Canada's Geocoding Solution
- Modular Architecture
- Windows Standalone Desktop Version
- UNIX, Java Wrapper, ActiveX (DLL Version)

Topographic Data and Base Maps
- Canadian Atlas Map Bundle (CAMB)
- Populated Placenames
- National Topographic Data Base (NTDB)
- 30 & 90m Digital Elevation Models (DEM)
- Clutter Data

Postal Geography & Data
- Six-Digit Postal Code File
- Enhanced Postal Code File
- Forward Sortation Areas (FSA) Boundary File

1996 Census Boundaries & Demographic Data
- Enumeration Area (EA)
- Census Subdivision (CSD)
- Census Division (CD)
- Census Metropolitan Area/Census Agglomeration (CMA/CA)
- Census Tract (CT)
- Federal Electoral Districts (FED)

2001 Census Boundaries
- Dissemination Area (DA)
- Census Subdivision (CSD)
- Census Division (CD)
- Census Metropolitan Area/Census Agglomeration (CMA/CA)
- Census Tract (CT)
- Federal Electoral Districts (FED)

GIS Software
- Contour Modeling and Display
- Demographic Profiling and Lifestyle Targeting
- Geocoding and Mapping Software
- Routing and Logistics

Consulting and Services
- Application Development
- Database Marketing
- Data Conversion and Creation
- Database Scrubbing
- Geocoding Services
- GIS Consulting
- Technical Support

Technical Support, Error Reporting & Product Enhancement Services

DMTI Spatial is committed to building the best products possible for our customers. By using our data every day in your mission critical application you are our best source for product refinement. Please let us know if you have an enhancement request or found an error in any of our products so that we can make the correction for the next release.

This is your opportunity to provide feedback directly to the DMTI Spatial Product Development Team. Please be as specific as possible so that we can improve our products quickly and accurately. To submit an error or request technical assistance please visit: http://www.dmtispatial.com/support/

If you have an idea for a new product, or an enhancement request for an existing product, please visit our product manger's desk on the web at: http://www.dmtispatial.com/pm/
or e-mail: pm@dmtispatial.com

Contact Information

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Trademarks and Notices

About CanMap® RouteLogistics v2007.3

Layer Properties

Property	Description
Coverage	National
Currency	August 15th, 2007
Level of Accuracy	Ranging from the National Topographic Data Base (NTDB) standard to sub-meter accuracy
Projection	unprojected Longitude-Latitude
Datum	NAD83
Format	ESRI and MapInfo[1]

Layer Naming Conventions

CanMap RouteLogistics is organized into the following directory structure and uses the following directory and file naming conventions:

Example: \CanMapRL\ON\Streets**ONhwy**

Product Directory	Geographic Area Directory	General Content Directory	Geographic Area Abbreviation	File Content Abbreviation
CanMapRL	ON	Streets	ON	hwy

The geographic area directory area indicates the geographic coverage of the layer, for example ON = Ontario.

The Geographic Area Name indicates the geographic extent of the file. DMTI Spatial's standard geographic coverage areas include all Provinces and Territories as well the coverage areas found in the CANtop file included with Bonus Canada Directory.

CanMap RouteLogistics contain the following general content directories:

Directory Name	Description
Canada	Canada Directory
POI	Points of Interest Directory
Streets	Streets Directory
Topo	Topo Directory

[1] Custom formats available upon request. Refer to Appendix A: ESRI File Extensions and Appendix B: MapInfo File Extensions for more information regarding file extensions.

About CanMap® RouteLogistics v2007.3 *(cont'd)*

Layer Contents

CanMap RouteLogistics is comprised of the following layers:

Canada Directory

Layer Name	Description	Feature Type
CAN**acb**	Area Code Boundaries	Polygon
CAN**cap**	Capital Cities	Point
CAN**prv**	Provincial/Territorial Boundaries	Polygon
CAN**rmn**	Regional Municipality Boundaries	Polygon
CAN**top**	Topographic Coverage Areas	Polygon
CAN**tzs**	Time Zones (Standard Time)	Polygon
CAN**tzd**	Time Zones (Daylight Savings Time)	Polygon
CAN**wat**	National Water	Polygon

The Canada Directory is included with the CanMap RouteLogistics product. For more information regarding the Canada Directory refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

Points of Interest Directory

Layer Name	Description	Feature Type
*AREA***aer**[2]	Aerodromes	Point
*AREA***cpl**	Car Pool Lots	Point
*AREA***edu**	Education	Point
*AREA***glf**	Golf Courses	Point
*AREA***hcr**	Health Care	Point
*AREA***ppn**	Populated Placenames	Point
*AREA***tol**	Toll Booths	Point
*AREA***trs**	Transportation Stops	Point
*AREA***wgh**	Weigh Stations	Point

The Points of Interest Directory is included with the CanMap RouteLogistics product. For more information regarding the Points of Interest Directory refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

Streets Directory

Layer Name	Description	Feature Type
*AREA***exc**[3]	Expressways Casements	Region
*AREA***fsa**	Forward Sortation Areas	Region
*AREA***hpc**	Primary Highways Casements	Region
*AREA***hrd**	Major Roads and Highways	Line
*AREA***hsc**	Secondary Highways Casements	Region
*AREA***hwy**	Highways	Line
*AREA***lnk**	Canada\US Roads Linkages	Point
*AREA***lrc**	Local Roads Casements	Region
*AREA***maf**	Municipal Amalgamations File	Region
*AREA***mrc**	Major Roads Casements	Region
*AREA***mun**	Municipality Boundaries	Region
*AREA***rds_lut**	Roads Lookup Table	None

[2] Where *AREA* refers to a DMTI Spatial Standard Geographic Area
[3] Casements not available in ArcInfo Interchange Format (*.e00)

About CanMap® RouteLogistics V2007.3 *(cont'd)*

Layer Name	Description	Feature Type
*AREA***ren**	Relative Elevation Nodes	Point
*AREA***rte**	Roads	Line
*AREA***rte_lut**	Route Logistics Lookup Table	None
*AREA***tlc**	Trails Casements	Region
*AREA***trn**	Turn Restrictions Table	None
*AREA***trr**	Transportation Route Restrictions Table	None
*AREA***xit**	Highway Exits	Point

For detailed information on other layers included in CanMap RouteLogistics refer to the *Data Dictionary* CanMap RouteLogistics User Manual. The following layers are specific to routing. For more information regarding these layers refer to the *Data Dictionary* of the CanMap RouteLogistics User Manual.

Layer Name	Description
*AREA***aer**	Aerodromes
*AREA***wgh**	Weigh Stations
*AREA***fsa**	Forward Sortation Areas
*AREA***ren**	Relative Elevation Nodes
*AREA***rte**	Roads
*AREA***rte_lut**	Route Logistics Lookup Table
*AREA***trn**	Turn Restrictions Table
*AREA***trr**	Transportation Route Restrictions Table
*AREA***xit**	Highway Exits

Topo Directory

Layer Name	Description	Feature Type
*AREA***bf**	Building Footprints	Region
*AREA***bp**	Building Points	Point
*AREA***hs**	Hydrographic Structures	Point, Line, Region
*AREA***hy**	Hydrography	Point, Line, Region
*AREA***ir**	Industrial and Resource	Point, Line, Region
*AREA***ll**	Land Feature Labels	Point
*AREA***lu**	Land Use	Region
*AREA***ot**	Other Transportation	Point, Line, Region
*AREA***ph**	Physiography	Point, Line, Region
*AREA***prl**	Parks and Recreation - Points	Line
*AREA***prp**	Parks and Recreation - Lines	Point
*AREA***prr**	Parks and Recreation - Regions	Region
*AREA***pt**	Pipelines and Transmission	Point, Line, Region
*AREA***rl**	Rail and Transit Lines	Line

About CanMap® RouteLogistics V2007.3 *(cont'd)*

Layer Name	Description	Feature Type
*AREA***ve**	Vegetation	Region
*AREA***we**	Wetlands	Region
*AREA***wl**	Water Feature Labels	Point

All two-character Topo layer names are suffixed with a "p" (point), "l" (line/polyline), or "r" (region) to indicate the object type contained within the file for ArcInfo, ArcView and ArcGIS formats only. For example, the "hy" (Hydrography) theme is provided as "hyp" (containing points), "hyl" (containing lines), and "hyr" (containing regions) files. All topographic layers may not be available for all geographical areas.

For more information regarding these layers refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

Using CanMap® RouteLogistics V2007.3

Viewing DMTI Spatial Products

Packaged with DMTI Spatial products are several custom viewing files for MapInfo® Professional, ESRI® ArcView® GIS and ESRI® ArcGIS®.

Software	Extension	Version Support
MapInfo Professional	*.wor	Version 6.0 and higher
ESRI ArcView GIS	*.apr	Version 3.2 and higher
ESRI ArcGIS	*.mxd	Version 8.3 and higher

Located in the product directory, these viewing files have been provided to maximize the ease of use of DMTI Spatial products by intelligently layering various data layers and displaying them based on appropriate viewing scales.

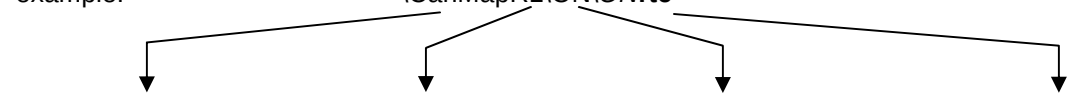
Viewing CanMap RouteLogistics

There are currently two viewing files available for reference, mapping and analysis.

Filename	Description
*AREA***rte**	Offers a limited number of files for reference purposes only. Opens and zoom-layers capital cities, populated placenames, roads, major roads and highways, highways, municipality boundaries, and national water.
*AREA***rtp**	Offers most of the files in the CanMap RouteLogistics product for mapping and analysis. Opens and zoom-layers almost all of the CanMap RouteLogistics. Includes labeling of roads, major roads & highways, highways, populated placenames, municipality boundaries, regional municipality boundaries, provincial boundaries.

CanMap RouteLogistics workspaces or project files are found in the product directory:

example: \CanMapRL\ON*ON***rte**



Product Directory	Geographic Area Directory	Geographic Area Abbreviation	Workspace/ Project File Type
CanMapRL	ON	ON	rte

Suggested Layering for CanMap Streetfiles

If you wish to view the CanMap product without the aid of the provided viewing files or the format purchased does not come with them, DMTI Spatial™ recommends using the following layering system to view your CanMap product:

Using CanMap® RouteLogistics V2007.3 *(cont'd)*

Layering in MapInfo

Layer	Description
cap	Capital Cities
xit	Highway Exits
ll	Land Feature Labels
wl	Water Feature Labels
aer	Aerodromes
cpl	Car Pool Lots
edu	Education
glf	Golf Courses
hcr	Health Care
ppn	Populated Placenames
tol	Toll Booths
trs	Transportation Stops
wgh	Weigh Stations
prp	Parks and Recreation - Points
prl	Parks and Recreation - Lines
pt	Pipelines and Transmission
bp	Building Points
bf	Building Footprints
rl	Railway and Transit Lines
exc	Expressways Casements
hpc	Primary Highways Casements
hsc	Secondary Highways Casements
mrc	Major Roads Casements
lrc	Local Roads Casements
tlc	Trails Casements
rte	Roads
hrd	Major Roads and Highways
hwy	Highways
hs	Hydrographic Structures
ot	Other Transportation
ir	Industrial and Resource
ph	Physiography
we	Wetlands
hy	Hydrography
prr	Parks and Recreation - Regions
ve	Vegetation
lu	Land Use
wat	National Water
fsa	Forward Sortation Areas

Using CanMap® RouteLogistics V2007.3 *(cont'd)*

Layer	Description
top	Topographic Coverage Areas
rmn	Regional Municipality Boundaries
mun	Municipality Boundaries
prv	Provincial Boundaries

Layering in ArcView, ArcGIS

Layer	Description
cap	Capital Cities
xit	Highway Exits
llp	Land Feature Labels
wlp	Water Feature Labels
aer	Aerodromes
cpl	Car Pool Lots
edu	Education
glf	Golf Courses
hcr	Health Care
ppn	Populated Placenames
tol	Toll Booths
trs	Transportation Stops
wgh	Weigh Stations
prp	Parks and Recreation - Points
ptp	Pipelines and Transmission - Points
otp	Other Transportation - Points
bpp	Building Points
hsp	Hydrographic Structures - Points
irp	Industrial and Resource - Points
php	Physiography - Points
hyp	Hydrography - Points
prl	Parks and Recreation - Lines
ptl	Pipelines and Transmission - Lines
otl	Other Transportation - Lines
bfr	Building Footprints
rll	Rail - Lines
exc	Expressways Casements
hpc	Primary Highways Casements
hsc	Secondary Highways Casements
mrc	Major Roads Casements

Using CanMap® RouteLogistics V2007.3 *(cont'd)*

Layer	Description
lrc	Local Roads Casements
tlc	Trails Casements
rte	Roads
hrd	Major Roads and Highways
hwy	Highways
hsl	Hydrographic Structures - Lines
irl	Industrial and Resource - Lines
phl	Physiography - Lines
hyl	Hydrography - Lines
ptr	Pipelines and Transmission - Regions
otr	Other Transportation - Regions
hsr	Hydrographic Structures - Regions
irr	Industrial and Resource - Regions
phr	Physiography - Regions
wer	Wetlands
hyr	Hydrography - Regions
prr	Parks and Recreation - Regions
ver	Vegetation
lur	Land Use
wat	National Water
fsa	Forward Sortation Areas
top	Topographic Coverage Areas
rmn	Regional Municipality Boundaries
mun	Municipality Boundaries
prv	Provincial Boundaries

Other CanMap Layers

Layer	Description
acb	Area Code Boundaries
lnk	Canada\USA Roads Linkages
ren	Relative Elevation Nodes
rte_lut	RouteLogistics Lookup Table
trn	Turn Restrictions Table (dbf)
trr	Transportation Route Restrictions
rds_lut	Roads Lookup Table
tzs	Time Zones (Standard Time)
tzv	Time Zones (Daylight Savings Time)

Data Dictionary

Area Code Boundaries (acb)

Layer Location

\Canada\CANacb

Layer Structure

Field Name	Field Type	Field Size	Description
AREA_CODE	Character	8	Area Code
AREA_PROV	Character	8	Provincial/Territorial Abbreviation. Records may contain multiple abbreviations where area codes are shared between provinces or territories.

Layer Content

Based on CanMap Municipality Boundaries, area code boundaries represent Canadian telephone area codes. In the North American telephone system, an area code is a three-digit code delineating a "toll" and is distributed according to the North American Number Plan (NANP). An area code is also referred to as a Number Plan Area or NPA. [4]

Province	Area Code
AB	403
AB	780
BC	250
BC	604/778
MB	204
NB	506
NL	709
NS/PE	902
ON	416/647
ON	519

Province	Area Code
ON	613
ON	705
ON	807
ON	905/289
QC	418
QC	450
QC	514
QC	819
SK	306
YT/NT/NU	867

[4] Source: North American Numbering Plan Administration, September 2003

Data Dictionary *(cont'd)*

Capital Cities (cap)

Layer Location

\Canada\CANcap

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	Character	68	Name of City
PROV	Character	2	Provincial/Territorial Abbreviation

Layer Content

Derived from CanMap Populated Placenames, capital cities represent all provincial and territorial capital cities and the national capital city.

Data Dictionary *(cont'd)*

Provincial Boundaries (prv)

Layer Location

\Canada\CANprv

Layer Structure

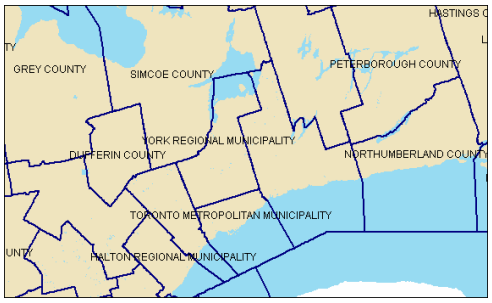
Field Name	Field Type	Field Size	Description
NAME	Character	25	Provincial/Territorial Name
PROV	Character	2	Provincial/Territorial Abbreviation

Layer Content

The Provinces layer is comprised of the 10 Provinces and 3 Territories that define Canada for political administrative purposes. DMTI Spatial Provinces and Territories correspond to Statistics Canada 2001 Provinces and Territories (PR)

Data Dictionary *(cont'd)*

Regional Municipality Boundaries (rmn)



Layer Location

\Canada\CANrmn

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	Character	46	Census Division Name
PROV	Character	2	Provincial/Territorial Abbreviation

Layer Content

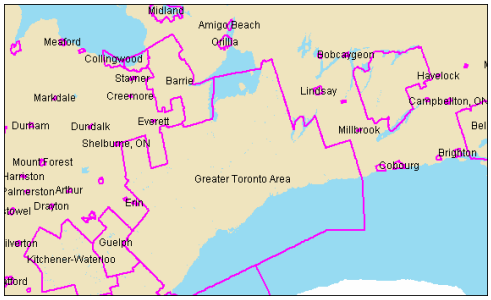
The Regional Municipalities layer is comprised of intermediate political administrative areas between the Province/Territories and Municipalities. DMTI Spatial Regional Municipalities correspond to Statistics Canada 2001 Census Divisions (CD).

Field Content

Type	Description
CTY	County
CU	Communauté urbaine
DIS	District
DIV	Census Division
DM	District Municipality
MRC	Municipalité régionale de comté
RD	Regional District
REG	Region
RM	Regional Municipality
TER	Territory
UC	United Counties

Data Dictionary *(cont'd)*

Topographic Coverage Areas (top)



Layer Location

\Canada\CANtop

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	Character	68	Topographic Coverage Area Name[5]
NAME_ABBR	Character	5	Topographic Coverage Area Abbreviation
PROV	Character	2	Provincial/Territorial Abbreviation

Layer Content

Topographic coverage areas represent areas across Canada where DMTI provides topographic data. Topographic data includes general land-use classifications, building footprints, transportation and utility features, hydrographical features, and physiographical features. Currently there are over 700 topographic coverage areas across the country.

[5] Refer to Appendix H: Canadian Urban Areas and Abbreviations for more information.

Data Dictionary *(cont'd)*

Time Zones – Standard Time (tzs) / Daylight Savings Time (tzd)

Layer Location

\Canada\CANtzs
\Canada\CANtzd

Layer Structure

Field Name	Field Type	Field Size	Description
ZONE_NAME	Character	30	Time Zone Name
ZONE_ABBR	Character	3	Time Zone Abbreviation
DEVFROMUTC	Character	5	The difference in hours from Coordinated Universal Time (UTC) or Greenwich Mean Time (GMT)

Layer Content

Canada has six time zones, which are regulated by provincial and territorial governments. In each time zone Standard or Daylight Saving time might be specified. For example, in Ontario, Eastern Standard Time is denoted as Coordinated Universal Time ("UTC") less 6 hours or Eastern Daylight Time as UTC – 4h. In most regions in Canada, Daylight Savings Time begins on the first Sunday of April and ends on the last Sunday of October.

In some parts of Canada, observed time practice differs from official legislated time. The time zones in DMTI Spatial's time zone data are derived from provincial and territorial legislation and regulations that were in effect as of April 1, 2001 (Legislated Time Zones). [6]

[6] Refer to Appendix I: Exceptions to Official Time in Canada for more information.

Data Dictionary *(cont'd)*

National Water (wat)

Layer Location

\Canada\CANwat

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	Character	40	Lake/River Name

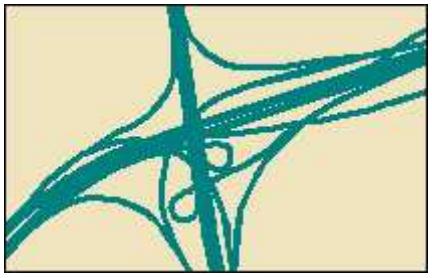
Layer Content

The national water layer contains generalized major water bodies derived from a variety of sources at scales ranging from 1:50 000 to 1:30 000 000.[7]

[7] For more information refer to Appendix J: Unshorelined and Shorelined Boundaries

Data Dictionary *(cont'd)*

Expressway Casements (exc)



Layer Location

\Streets*AREA***exc**

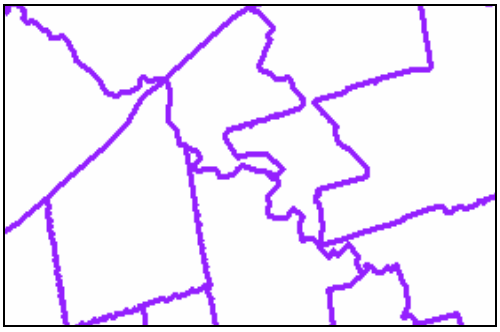
Layer Structure

Field Name	Type	Size	Description
STREET[8]	Character	64	Street Title
RDS_ID	Decimal	9,0	UniqueId of related Roads (rds) segment

[8] For more information refer to Appendix C: Street Types and Street Directions

Data Dictionary *(cont'd)*

Forward Sortation Areas (fsa)



Layer Location

\Streets*AREA***fsa**

Layer Structure

Field Name	Type	Size	Description
FSA	Character	3	Forward Sortation Area
PROV	Character	2	Province Abbreviation[9]
PROV_CODE	Character	2	Province Code[10]

Layer Content

The first three characters of a postal code represent the Forward Sortation Area (FSA) indicating a geographic area in an urban or rural area. The first character of the Forward Sortation Area identifies one of the 18 major geographic areas, provinces or districts.

The second numeric character (numerals 0-9) of the Forward Sortation Area Boundary identifies either an urban postal code or a rural postal code. Rural postal code are represented by the numeral 0 (zero) for example, A0A) and are serviced by rural route drivers and/or postal outlets. An urban postal code is represented by the numerals 1 to 9 for example, E2J and are generally serviced by letter carrier or community mailboxes.

The third character of the Forward Sortation Area segment (E2J) in conjunction with the first two characters, describes an area of a city or town or other geographic area.

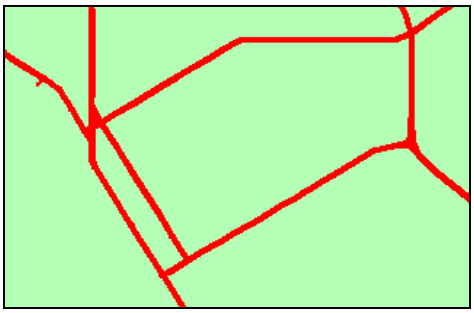
[9] Source: Canada Post Corporation, The Canadian Addressing Guide, October 2002
[10] Source: Statistics Canada, Standard Geographical Classification (SGC), 2001

Data Dictionary *(cont'd)*

First Letter of FSA	Geographic Area
A	Newfoundland & Labrador
B	Nova Scotia
C	Prince Edward Island
E	New Brunswick
G	Quebec (east)
H	Québec (metropolitan Montréal)
J	Quebec (west)
K	Ontario (east)
L	Ontario (central)
M	Ontario (metropolitan Toronto)
N	Ontario (southwest)
P	Ontario (northern)
R	Manitoba
S	Saskatchewan
T	Alberta
V	British Columbia
X	Northwest Territories/Nunavut
Y	Yukon Territory

Data Dictionary *(cont'd)*

Primary Highway Casements (hpc)



Layer Location

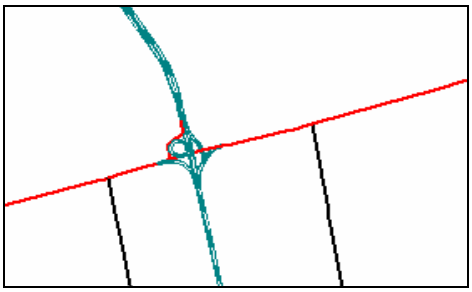
\Streets*AREA***hpc**

Layer Structure

Field Name	Type	Size	Description
STREET	Character	64	Street Title
RDS_ID	Decimal	9,0	UniqueID of related Roads (rds) segment

Data Dictionary *(cont'd)*

Major Roads and Highways (hrd)



Layer Location

\Streets*AREA***hrd**

Layer Structure

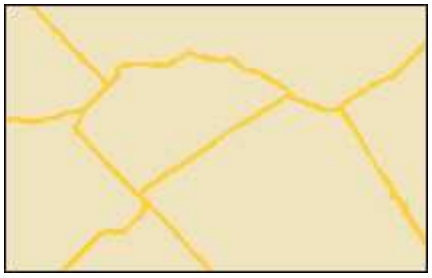
Field Name	Field Type	Field Size	Description
STREET	Character	69	Street Name
CARTO	Decimal	3,0	Cartographic Road Classification
LEFT_MUN	Character	70	Municipality
RIGHT_MUN	Character	70	Municipality
LEFT_MAF	Character	70	Municipal Amalgamation
RIGHT_MAF	Character	70	Municipal Amalgamation
LEFT_FSA	Character	3	Forward Sortation Area
RIGHT_FSA	Character	3	Forward Sortation Area
LEFT_PRV	Character	2	Provincial/Territorial Abbreviation
RIGHT_PRV	Character	2	Provincial/Territorial Abbreviation
UNIQUEID	Decimal	9,0	Unique Identifier of Street segment

Field Content

Please note that as of CanMap v8.2 the Municipality (_MUN) fields are attributed with 2001 Census based Municipality names. 1996 Census based Municipality names can be obtained by linking the **hrd** layer to the **rds_lut** layer via the UNIQUEID and RDS_ID fields.

Data Dictionary *(cont'd)*

Secondary Highway Casements (hsc)



Layer Location

\Streets\ *AREA***hsc**

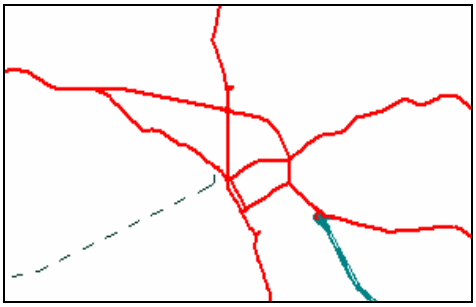
Layer Structure

Field Name	Type	Size	Description
STREET[11]	Character	64	Street Title
RDS_ ID	Decimal	9,0	UniqueId of related Roads (rds) segment

[11] For more information refer to Appendix C: Street Types and Street Directions

Data Dictionary *(cont'd)*

Highways (hwy)



Layer Location

\Streets*AREA***hwy**

Layer Structure

Field Name	Type	Size	Description
STREET[12]	Character	69	Street Name
CARTO[13]	Decimal	3,0	Cartographic Road Classification
LEFT_MUN	Character	70	Municipality
RIGHT_MUN	Character	70	Municipality
LEFT_MAF	Character	70	Municipal Amalgamation
RIGHT_MAF	Character	70	Municipal Amalgamation
LEFT_FSA	Character	3	Forward Sortation Area
RIGHT_FSA	Character	3	Forward Sortation Area
LEFT_PRV	Character	2	Provincial/Territorial Abbreviation
RIGHT_PRV	Character	2	Provincial/Territorial Abbreviation
UNIQUEID	Decimal	9,0	Unique Identifier of Street segment

Field Content

Please note that as of CanMap v8.2 the Municipality (_MUN) fields are attributed with 2001 Census based Municipality names. 1996 Census based Municipality names can be obtained by linking the **hwy** layer to the **rds_lut** layer via the UNIQUEID and RDS_ID fields.

[12] For more information refer to Appendix C: Street Types and Street Directions
[13] For more information refer to Appendix D: Cartographic Road and Rail Classifications

Data Dictionary *(cont'd)*

Canada\USA Roads Linkages (lnk)

Layer Location

\Streets*AREA***lnk**

Layer Structure

Field Name	Type	Size	Description
RDS_ID	Decimal	9,0	UniqueId of related Roads (rds) segment
CAN_STREET	Character	69	Canadian Street at Roads Linkage
PROV	Character	2	Provincial/Territorial Abbreviation
USA_STREET	Character	69	American Street at Roads Linkage
STATE	Character	2	State Abbreviation
PORT_ENTRY	Character	100	Port of Entry Name (where applicable)
LONGITUDE	Decimal	11,6	Longitude of Roads Linkage
LATITUDE	Decimal	11,6	Latitude of Roads Linkage

Data Dictionary *(cont'd)*

Local Road Casements (lrc)

Layer Location

\Streets*AREA***lrc**

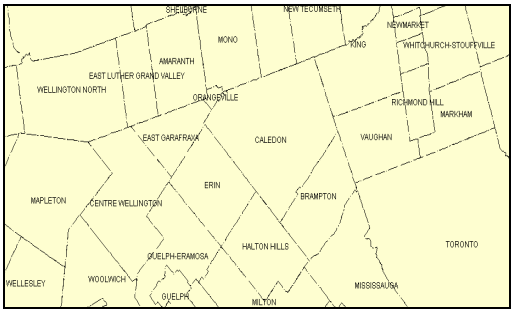
Layer Structure

Field Name	Type	Size	Description
STREET[14]	Character	64	Street Title
RDS_ ID	Decimal	9,0	UniqueId of related Roads (rds) segment

[14] For more information refer to Appendix C: Street Types and Street Directions

Data Dictionary *(cont'd)*

Municipal Amalgamation File (maf)



Layer Location

\MAF*AREA***maf**

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	Character	70	Municipality name
PROV	Character	2	Provincial/Territorial Abbreviation.
TYPE	Character	3	Municipality type
EFF_DATE	Character	8	Date the municipal amalgamation change comes into effect. Date appears in YYYYMMDD format. Null records indicate that amalgamations have not occurred.

Layer Content

The Municipal Amalgamation File (MAF) is a supplementary municipality boundary with CanMap® Streetfiles and CanMap® RouteLogistics and reflects recent changes to any amalgamated municipal boundaries, their subsequent changes to name, municipality type and date of amalgamation. An amalgamation is defined as a consolidation of two or more entire municipalities.

Derived from Statistics Canada 2001Census the Municipal Amalgamation file contains:

- Municipal amalgamations that have occurred since the 2001 Census
- Municipal amalgamations based on provincial/territorial sources
- Census Subdivision Name and Type revisions from the 2001 Census

Municipality type refers to the census subdivision (CSD) type definition given to a municipality by Statistics Canada. "CSD" is the general term for municipalities (as determined by provincial legislation) or areas treated as municipal equivalents for statistical purposes (for example, Indian reserves, Indian settlements and unorganized territories).

Census subdivisions (CSDs) are classified into 46 types according to official designations adopted by provincial or federal authorities." The following table provides a list of CSD types and their abbreviations:[15]

[15] Source: Statistics Canada, Standard Geographical Classification (SGC), 2001

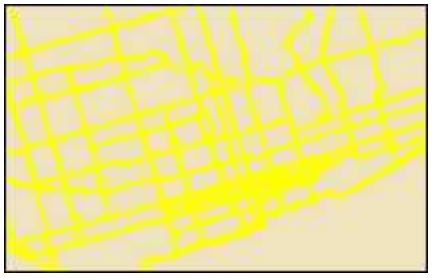
Data Dictionary *(cont'd)*

Type	Description
C	City
CC	Chartered Community
CM	County (Municipality)
COM	Community
CT	Canton (Municipalité de)
CU	Cantons unis (Municipalité de)
DM	District Municipality
HAM	Hamlet
ID	Improvement District
IGD	Indian Government District
IM	Island Municipality
LGD	Local Government District
LOT	Township and Royalty
M	Municipalité
MD	Municipal District
NH	Northern Hamlet
NL	Nisga'a Land
NV	Northern Village
NVL	Nisga'a Village
P	Paroisse (Municipalité de)
PAR	Parish
R	Indian Reserve / Réserve indienne
RC	Rural Community

Type	Description
RDA	Regional District Electoral Area
RG	Region
RGM	Regional Municipality
RM	Rural Municipality
RV	Resort Village
S-E	Indian Settlement / Établissement indien
SA	Special Area
SCM	Subdivision of County Municipality
SET	Settlement
SM	Specialized Municipality
SUN	Subdivision of Unorganized
SV	Summer Village
T	Town
TI	Terre inuite
TL	Teslin Land
TP	Township
TR	Terres réservées
UNO	Unorganized / Non-oraganisé
V	Ville
VC	Village cri
VK	Village naskapi
VL	Village
VN	Village nordique

Data Dictionary *(cont'd)*

Major Roads Casements (mrc)



Layer Location

\Streets*AREA***mrc**

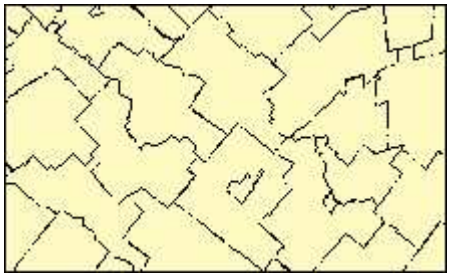
Layer Structure

Field Name	Type	Size	Description
STREET[16]	Character	64	Street Title
RDS_ ID	Decimal	9,0	UniqueId of related Roads (rds) segment

[16] For more information refer to Appendix C: Street Types and Street Directions

Data Dictionary *(cont'd)*

Municipality Boundaries (mun)



Layer Location

\Streets*AREA***mun**

Layer Structure

Field Name	Type	Size	Description
NAME	C	70	Municipality Name
TYPE	C	3	Municipality Type
POP2001	D	8,0	2001 Census Population Count
DWELL2001	D	7,0	2001 Census Dwelling Count
AREA_SQKM	D	12,4	Area (square kilometers) from Statistics Canada Land Base
POP_SQKM	D	13,4	Population Density (per square kilometer)
PROV	C	2	Provincial/Territorial Abbreviation

Layer Content

The Municipalities layer is comprised of political administrative entities such as cities, towns, or villages. The DMTI Spatial Municipalities layer corresponds to the Statistics Canada 2001 Census Subdivisions (CSD).

Field Content

Type

The Municipality Type is used to help distinguish Municipalities having the same name from one another. The Municipality Types correspond to the Statistics Canada 2001 Census Subdivision (CSD) Types.

Data Dictionary *(cont'd)*

Type	Description
C	City – Cité
CC	Chartered Community
CM	County (Municipality)
COM	Community
CT	Canton (Municipalité de)
CU	Cantons unis (Municipalité de)
DM	District Municipality
HAM	Hamlet
ID	Improvement District
IGD	Indian Government District
IM	Island Municipality
LGD	Local Government District
LOT	Township and Royalty
M	Municipalité
MD	Municipal District
NH	Northern Hamlet
NL	Nisga'a Land
NV	Northern Village
NVL	Nisga'a Village
P	Paroisse (Municipalité de)
PAR	Parish
R	Indian Reserve - Réserve indienne
RC	Rural Community

Type	Description
RDA	Regional District Electoral Area
RG	Region
RGM	Regional Municipality
RM	Rural Municipality
RV	Resort Village
S-E	Indian Settlement - Établissement indien
SA	Special Area
SCM	Subdivision of County Municipality
SET	Settlement
SM	Specialized Municipality
SUN	Subdivision of Unorganized
SV	Summer Village
T	Town
TI	Terre inuite
TL	Teslin Land
TP	Township
TR	Terres réservées
UNO	Unorganized - Non organisé
V	Ville
VC	Village cri
VK	Village naskapi
VL	Village
VN	Village nordique

Data Dictionary *(cont'd)*

Roads Look Up Table (rds_lut)

Layer Location

\Streets*AREA***rds_lut**

Layer Structure

Field Name	Type	Size	Description
RDS_ID	Decimal	9,0	UniqueId of related Roads (rds) segment
ALIAS_NAME	Character	69	Alternate Street Name
FORMERNAME[17]	Character	69	Former Provincial Hwy Name
HWY_NUM	Character	20	Highway Number(s) (e.g. 404)
HWY_NUMNAM	Character	69	Highway Numeric Name (e.g. Highway 404)
HWY_NAME	Character	69	Highway Name Non-Numeric (e.g. Don Valley Pky)
RD_NUM	Character	20	Road Number (e.g. 4)
RD_NUMNAM	Character	69	Road Numeric Name (e.g. Regional Rd 4)
RD_NAME	Character	69	Road Name Non-Numeric (e.g. Taunton Rd W)
ALASKAHWY	Decimal	1,0	Alaskan Highway flag
CARIBOOHWY	Decimal	1,0	Cariboo Highway flag
CRWSNSTHWY	Decimal	1,0	Crowsnest Highway flag
DEMPSTRHWY	Decimal	1,0	Dempster Highway flag
JOHNHRTHWY	Decimal	1,0	John Hart Highway flag
KLONDKEHWY	Decimal	1,0	Klondike Highway flag
MCKNZIEHWY	Decimal	1,0	Mackenzie Highway flag
TRNSCDAHWY	Decimal	1,0	TransCanada Highway Flag
YELOWHDHWY	Decimal	1,0	Yellow Head Highway Flag
TOLL_RD	Decimal	1,0	Toll Road Flag
BRIDGE	Decimal	1,0	Bridge Flag
TUNNEL	Decimal	1,0	Tunnel Flag
BRUNNELNAM	Character	69	Bridge/Tunnel Name
TRAILNAME	Character	100	Trail Name
TRAILTYPE	Character	50	Trail Type
TRAILCLASS	Character	20	Trail Class
TRAILCODE	Decimal	4,0	Trail Code
L_MUN_96	Character	68	Municipality (1996 Census based)
R_MUN_96	Character	68	Municipality (1996 Census based)

[17] Applicable only in Ontario

Trail Classes, Types and Codes

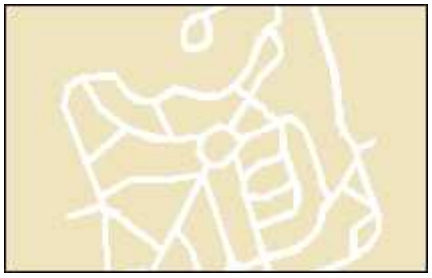
TrailCode	TrailType	TrailClass
1000	OTHER PARK	PARK
1001	NATIONAL PARK	PARK
1002	PROVINCIAL PARK	PARK
1003	MUNICIPAL PARK	PARK
1004	CONSERVATION AREA	PARK
1005	NATIONAL HISTORIC SITE	PARK
1006	WILDLIFE/NATURE SANCTUARY	PARK
1007	EXHIBITION GROUNDS	PARK
2000	OTHER RECREATIONAL	RECREATIONAL
2001	HIKING/WALKING	RECREATIONAL
2002	BIKING	RECREATIONAL
2003	RIDING	RECREATIONAL
2004	SNOWMOBILE	RECREATIONAL
2005	SKIING	RECREATIONAL
2006	GOLF COURSE	RECREATIONAL
2007	PORTAGE	RECREATIONAL
3000	OTHER PRIVATE	PRIVATE
3001	TOWNHOUSE/CONDOMINIUM	PRIVATE
3002	SHOPPING MALL	PRIVATE
3003	TRAILER PARK	PRIVATE
3004	LOGGING ROAD	PRIVATE
3005	CEMETERY	PRIVATE
3006	ALLEY WAY	PRIVATE
3007	AIRPORT/HELIPORT	PRIVATE
3008	ABANDONED RAILWAY	PRIVATE
3009	INDUSTRIAL	PRIVATE
3010	FOREST SERVICE ROAD	PRIVATE
3011	REST AREA	PRIVATE
3012	SERVICE STATION	PRIVATE
3013	ABANDONED ROAD	PRIVATE
3014	COUNTRY CLUB	PRIVATE
3015	HOTEL/MOTEL	PRIVATE
3016	RETAIL/OFFICE	PRIVATE
4000	OTHER EMERGENCY SERVICES	EMERGENCY SERVICES
4001	HOSPITAL	EMERGENCY SERVICES
4002	FIRE ACCESS	EMERGENCY SERVICES
4003	EMERGENCY SERVICES ROAD	EMERGENCY SERVICES

Trail Classes, Types and Codes (con't)

TrailCode	TrailType	TrailClass
5000	OTHER EDUCATIONAL	EDUCATIONAL
5001	PRIVATE ELEMENTARY SCHOOL	EDUCATIONAL
5002	PUBLIC ELEMENTARY SCHOOL	EDUCATIONAL
5003	PRIVATE HIGHSCHOOL	EDUCATIONAL
5004	PUBLIC HIGHSCHOOL	EDUCATIONAL
5005	UNIVERSITY	EDUCATIONAL
5006	COLLEGE	EDUCATIONAL
5007	MILITARY SCHOOL	EDUCATIONAL
5008	SEPARATE ELEMENTARY SCHOOL	EDUCATIONAL
5009	SEPARATE HIGHSCHOOL	EDUCATIONAL
6000	OTHER GOVERNMENT	GOVERNMENT
6001	EXPERIMENTAL FARM	GOVERNMENT
6002	DEPARTMENT OF NATIONAL DEFENCE	GOVERNMENT
6003	CORRECTIONAL FACILITY	GOVERNMENT
6004	WEIGH STATION	GOVERNMENT
6005	PEDESTRIAN WALK WAY	GOVERNMENT
6006	POLICE TRAINING FACILITY	GOVERNMENT
6007	SEWAGE OR WATER TREATMENT FACILITY	GOVERNMENT
6008	NO PUBLIC ACCESS/BUS ROUTE	GOVERNMENT
7000	LIMITED USE ROAD: OTHER	LIMITED USE ROAD
7001	LIMITED USE ROAD: WINTER	LIMITED USE ROAD
7002	LIMITED USE ROAD: DRY WEATHER	LIMITED USE ROAD
7003	LIMITED USE ROAD: CART TRACK	LIMITED USE ROAD

Data Dictionary *(cont'd)*

Trail Casements (tlc)



Layer Location

\Streets*AREA***tlc**

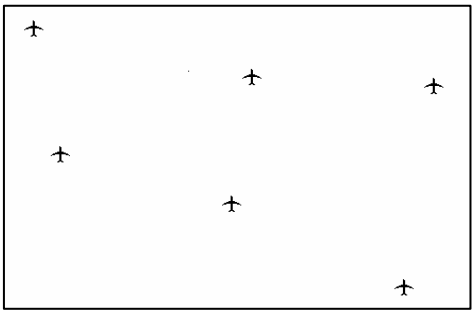
Layer Structure

Field Name	Type	Size	Description
STREET[18]	Character	64	Street Title
RDS_ID	Decimal	9,0	UniqueId of related Roads (rds) segment

[18] For more information refer to Appendix C: Street Types and Street Directions

Data Dictionary *(cont'd)*

Aerodromes (aer)



Layer Location
\POI*AREA***aer**

Layer Structure

Field Name	Type	Size	Description
NAME	Character	150	Aerodrome name
CITY	Character	68	City (or closest Municipality)
PROV	Character	2	Province Abbreviation
ICAO_CODE	Character	4	4 Character Aerodrome Location Indicator
IATA_CODE	Character	3	3 Character Aerodrome Location Indicator
AER_TYPE	Character	10	Description of type of Aerodrome
STATUS	Character	10	Operational status of Aerodrome
NAME_ALIAS	Character	125	Aerodrome name alias
PREC_CODE	Character	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	Character	2	Code indicating the accuracy of the attribute data
POI_ID	Character	15	Unique ID

Layer Content

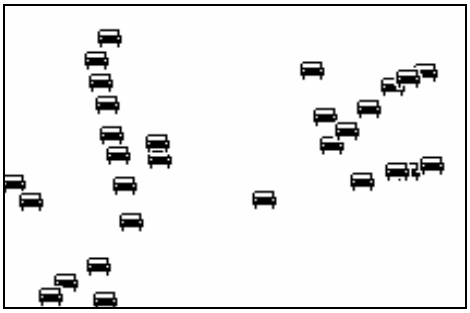
Name
When the geographic location is not reflected in the Aerodrome name, the name of the community is placed before the Aerodrome name separated by a forward slash.

Name_Alias
Provides a commonly used name.

Aerodrome Name	Community Name	Other Name	Name Alias
Toronto/Lester B. Pearson Intl	Toronto	Lester B. Pearson Intl	Lester B Pearson International Airport
Montréal/St-Hubert	Montréal	St-Hubert	Aeroport de Saint-Hubert
Calgary/Springbank	Calgary	Springbank	Calgary Springbank Airport

Data Dictionary *(cont'd)*

Car Pool Lots (cpl)



Layer Location
\POI*AREA***cpl**

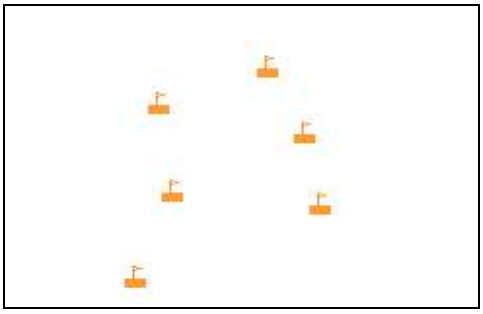
Layer Structure

Field Name	Type	Size	Description
NAME	Character	150	Car Pool Lot name
LOCATION	Character	100	Car Pool Lot Location
CITY	Character	68	City (or closest Municipality)
PROV	Character	2	Province (Abbreviation)
EXIT_NUM	Character	5	Highway Exit Number at Car Pool Lot Location
DIRECTION	Character	2	Direction of Highway at Car Pool Lot Location
PREC_CODE[19]	Character	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	Character	2	Code to indicate the accuracy of the attribute data
POI_ID	Character	15	Unique ID

[19] Refer to the Appendix G: Geographical Placement of Data for more information.

Data Dictionary *(cont'd)*

Education (edu)



Layer Location

\POI*AREA***edu**

Layer Structure

Field Name	Type	Size	Description
NAME	Character	150	Educational facility name
PREC_CODE[20]	Character	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	Character	2	Code to indicate the accuracy of the attribute data
POI_ID	Character	15	Unique ID

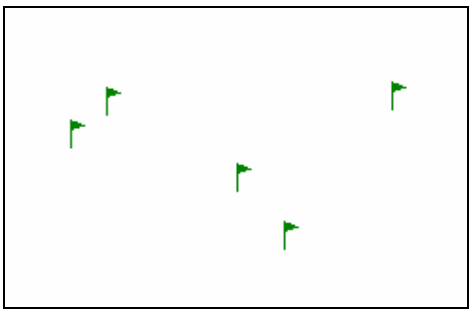
Layer Content

Includes Elementary, High Schools, Colleges, Cégeps and Universities.

[20] Refer to the Appendix G: Geographical Placement of Data for more information.

Data Dictionary *(cont'd)*

Golf Courses (glf)



Layer Location

\POI*AREA***glf**

Layer Structure

Field Name	Type	Size	Description
NAME	Character	150	Golf Course name
PREC_CODE[21]	Character	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	Character	2	Code to indicate the accuracy of the attribute data
POI_ID	Character	15	Unique ID

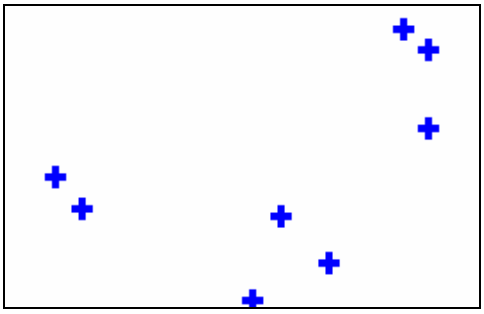
Layer Content

Includes both Private and Public golf courses as well as their locations, phone numbers and number of holes.

[21] Refer to the Appendix G: Geographical Placement of Data for more information.

Data Dictionary *(cont'd)*

Health Care (hcr)



Layer Location

\POI*AREA***hcr**

Layer Structure

Field Name	Type	Size	Description
NAME	Character	150	Health Care facility name
PREC_CODE[22]	Character	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	Character	2	Code to indicate the accuracy of the attribute data
POI_ID	Character	15	Unique ID (link to main POI database)

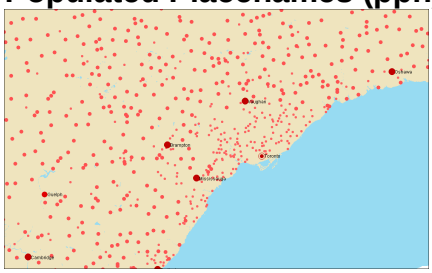
Layer Content

Includes Hospitals, Long-Term Care Centers, Nursing Stations, Outpatient Clinics and Community Health Centers.

[22] Refer to the Appendix G: Geographical Placement of Data for more information.

Data Dictionary *(cont'd)*

Populated Placenames (ppn)



Layer Location

\POI*AREA***ppn**

Layer Structure

Field Name	Field Type	Field Size	Description
NAME	Character	68	Placename
PROV	Character	2	Provincial/Territorial Abbreviation
LONGITUDE	Decimal	11,6	Longitude of Populated Placename
LATITUDE	Decimal	11,6	Latitude of Populated Placename
PPN_CODE	Decimal	3,0	Populated Placename Code
PREC_CODE	Decimal	2,0	Code indicating the positional accuracy or precision of the geocoded feature
MJR_CITY	Decimal	1,0	Identifies cities with populations > 100,000
CAPITAL	Decimal	1,0	Identifies provincial capital cities and the national capital
PRCDCSD	Character	8	2001 Census Subdivision (CSD) code in which the placename is located
CSD_NAME	Character	68	2001 Census Subdivision (CSD) name in which the placename is located
CSD_POP01	Decimal	8,0	Census Subdivision (CSD) population (2001) in which the placename is located

Layer Content

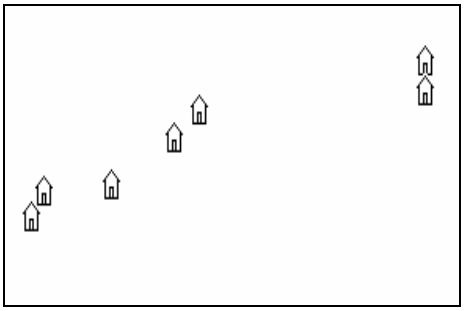
Based on both the Canadian Geographic Names Database[23] and Statistics Canada, the CanMap Populated Placenames file provides a rich and extensive layer of cities, towns, villages and communities across Canada. CanMap Populated Placenames have been enhanced by verifying and aligning points with CanMap® Streetfiles.

PPN_Code	Type of Populated Placename
101	Capital City
100	Major City
1	Minor City
2	Town
3	Urban Community
4	Urban Fringe
5	Urban Area
6	Rural Community

[23] Source: Natural Resources Canada, Canadian Geographical Names Database (CGNDB), 1999

Data Dictionary *(cont'd)*

Toll Booths (tol)



Layer Location

\POI*AREA***tol**

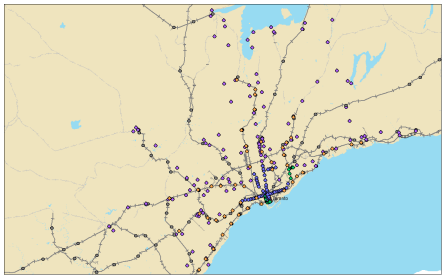
Layer Structure

Field Name	Type	Size	Description
NAME	Character	150	Toll Booth name
LOCATION	Character	100	Toll Booth location
CITY	Character	68	City (or closest Municipality)
PROV	Character	2	Province (Abbreviation)
DIRECTION	Character	2	Direction of Highway at Car Pool Lot Location
PREC_CODE[24]	Character	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	Character	2	Code to indicate the accuracy of the attribute data
POI_ID	Character	15	Unique ID

[24] Refer to the Appendix G: Geographical Placement of Data for more information.

Data Dictionary *(cont'd)*

Transportation Stops (trs)



Layer Location
\POI*AREA***trs**

Layer Structure

Field Name	Type	Size	Description
NAME	Char	150	Transportation Stop name
CITY	Char	68	City or municipality
PROV	Char	2	Provincial/Territorial Abbreviation
TRS_TYPE	Char	25	Transportation Stop classification (if available)
OWNER	Char	68	Transportation Stop owner/operator
ROUTE	Char	100	Transportation Stop Route
TRS_NUM	Char	8	Transportation Stop number (if available)
CODE	Decimal	4,0	Classification Code
PREC_CODE	Char	2	Precision Code
ATTRIB_CODE	Char	2	Attribute Code
POI_ID	Char	15	Transit Stop unique identifier (Unique ID)

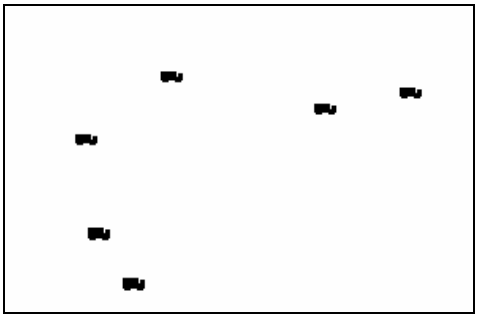
- Bus and Rail Transit stops have been merged with the Railway Stops to create a Transportation Stops layer. Some fields were added and others changed name or type to accommodate the transit data. See table above for descriptions of each field.

Layer Content

CODE	FEATURE
150	BUS STOP
151	BUILDING: RAPID TRANSIT STATION
152	BUILDING: LIGHT RAIL TRANSIT STATION
154	BUILDING: COMMUTER RAIL STATION
155	BUILDING: RAILWAY STATION

Data Dictionary *(cont'd)*

Weigh Stations (wgh)



Layer Location

\POI*AREA***wgh**

Layer Structure

Field Name	Type	Size	Description
NAME	Character	150	Name of Weigh Station
LOCATION	Character	100	Location of Weigh Station
DELIV_MODE	Character	25	P.O. Box# or Unit#
CITY	Character	68	City (or closest Municipality)
PROV	Character	2	Province
POST_CODE	Character	7	Postal Code
PHONE	Character	15	Telephone#
FAX	Character	15	Fax#
WGH_TYPE	Character	10	Permanent or Portable Scale
DIRECTION	Character	2	Indicates the direction of road scale is on
HOURS	Character	20	Hours of operation
YEAR_ROUND	Decimal	1,0	Year Round operation
RESTROOM	Decimal	1,0	Restrooms available
AVION401	Decimal	1,0	Avion 401 automated clearance system
PREC_CODE	Character	2	Code indicating the positional accuracy or precision of the geocoded feature
ATTRIBCODE	Character	2	Code indicating the accuracy of the attribute data
POI_ID	Character	15	Unique ID

Data Dictionary *(cont'd)*

Building Footprints (bfr)

Layer Location

\Topo*AREA***bfr***

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type
CATEGORY	Character	40	Feature Category

Layer Content

Code	Feature
106	ARENA
107	ARMOURY
108	AUTOMOBILE PLANT
109	BARN/MACHINERY SHED
111	CEMENT PLANT
112	CHEMICAL PLANT
113	CHURCH
114	CITY HALL
115	COAST GUARD STATION
116	COLLEGE
117	COMMUNITY CENTRE
118	CONVENT
119	CORRECTIONAL INSTITUTE
120	COURTHOUSE
120	COURT HOUSE
121	CUSTOMS POST
122	DOME
123	ELECTRIC POWER STATION
124	FACTORY
125	FILTRATION PLANT
126	FIRE STATION
127	FIRE/POLICE STATION

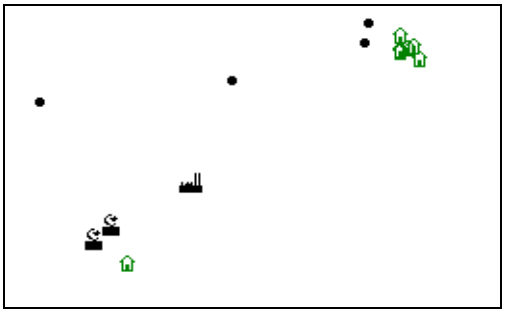
Code	Feature
128	FISH HATCHERY
129	FISH PROCESSING PLANT
130	GRAIN ELEVATOR
131	HALL
132	HIGHWAY SERVICE CENTRE
133	HOSPITAL
134	HOSTEL
135	HOTEL
136	KILN (TOBACCO)
137	LUMBER MILL
139	MEDICAL CENTRE
140	MONASTERY
141	MOTEL
142	MUNICIPAL HALL
143	MUSEUM
144	NON-CHRISTIAN PLACE OF WORSHIP
145	OBSERVATORY
146	OIL/GAS FACILITIES BUILDING
146	GAS AND OIL FACILITIES
147	OTHER
149	PARLIAMENT BUILDING
150	PENITENTIARY

Data Dictionary *(cont'd)*

Code	Feature
151	PETROLEUM REFINERY
152	PLANT
153	POLICE STATION
154	PULP/PAPER MILL
155	RAILWAY STATION
156	REFORMATORY
157	SANATORIUM
158	SATELLITE-TRACKING STATION
159	SAWMILL
160	SCHOOL
161	SEMINARY
162	SENIOR CITIZENS HOME
163	SEWAGE TREATMENT PLANT
164	SHIPYARD
165	SHOPPING CENTRE
166	SPORTSPLEX
167	STEEL MILL
168	TRADING POST
169	UNIVERSITY
170	WARDEN/RANGER STATION
171	WATER TREATMENT PLANT
172	WEIGH SCALE (HIGHWAY)
172	WEIGHT SCALE
174	GREENHOUSE
175	PENAL BUILDING
176	LODGING FACILITIES
177	INDUSTRIAL BUILDING
178	RELIGIOUS BUILDING
179	EDUCATIONAL BUILDING
585	FORT: GENERIC/UNKNOWN
585	FORT
618	GREENHOUSE
1220	STADIUM

Data Dictionary *(cont'd)*

Building Points (bpp)



Layer Location
\Topo*AREA***bpp***

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type
CATEGORY	Character	40	Feature Category

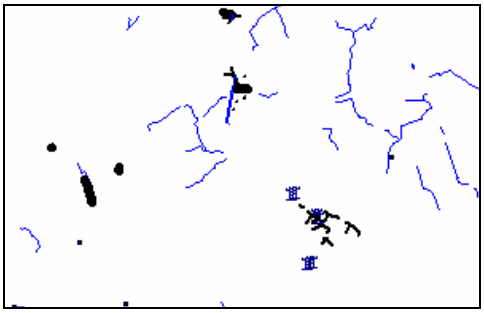
Layer Content

Code	Feature
109	BARN/MACHINERY SHED
110	CABIN
113	CHURCH
114	CITY HALL
115	COAST GUARD STATION
118	CONVENT
122	DOME
123	ELECTRIC POWER STATION
125	FILTRATION PLANT
126	FIRE STATION
127	FIRE/POLICE STATION
128	FISH HATCHERY
129	FISH PROCESSING PLANT
130	GRAIN ELEVATOR
136	KILN (TOBACCO)
137	LUMBER MILL
140	MONASTERY

Code	Feature
144	NON-CHRISTIAN PLACE OF WORSHIP
146	OIL/GAS FACILITIES BUILDING
148	OUTBUILDING
151	PETROLEUM REFINERY
155	RAILWAY STATION
159	SAWMILL
163	SEWAGE TREATMENT PLANT
164	SHIPYARD
167	STEEL MILL
170	WARDEN/RANGER STATION
171	WATER TREATMENT PLANT
174	GREENHOUSE
178	RELIGIOUS BUILDING
250	CEMETERY
684	LOOKOUT
1119	SHRINE

Data Dictionary *(cont'd)*

Hydrographic Structures (hs)



Layer Location

\Topo\ *AREA***hs**

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
58	BOAT RAMP
58	BOAT RAMP: GENERIC/UNKNOWN
80	BREAKWALL/BREAKWATER
80	BREAKWATER: UNKNOWN
275	CONDUIT: ABOVEGROUND, PENSTOCK
275	CONDUIT: GROUND LEVEL, PENSTOCK
276	CONDUIT: UNDERGROUND, PENSTOCK
277	CONDUIT: ABOVEGROUND, OTHER
277	CONDUIT: GROUND LEVEL, OTHER
278	CONDUIT: UNDERGROUND, OTHER
289	CONDUIT BRIDGE: GENERIC/UNKNOWN
359	DAM
360	DAM: OTHER
361	DAM: SLUICE GATE
405	DRYDOCK
429	DYKE/LEVEE
429	DYKE/LEVEE: UNKNOWN
475	EXPOSED SHIPWRECK
486	FALLS
519	FISH LADDER
519	FISH LADDER: GENERIC/UNKNOWN
530	FISH POUND
530	FISH POUND: GENERIC/UNKNOWN
541	FLOODED AREA

Data Dictionary *(cont'd)*

Code	Feature
651	IRRIGATION CANAL/DITCH
662	KELP: GENERIC/UNKNOWN
673	LOCK GATE: GENERIC/UNKNOWN
673	LOCK GATE
743	NAVIGABLE CANAL: ABANDONED
744	NAVIGABLE CANAL: OPERATIONAL
755	NAVIGATION BEACON
766	NAVIGATION LIGHT
766	NAVIGATIONAL AID: NAVIGATION LIGHT
767	NAVIGATIONAL AID: NAVIGATION BEACON
777	OBSTACLE IN WATER
847	PERMANENT SNOW AND ICE: OTHER
909	POND PARTITION: GENERIC/UNKNOWN
910	POND PARTITION: FISH POUND
911	POND PARTITION: RESERVOIR
912	POND PARTITION: WASTE
967	RAPIDS
979	RESERVOIR: OPEN, DRINKING WATER RESERVOIR
980	RESERVOIR: UNDERGROUND, DRINKING WATER RESERVOIR
981	RESERVOIR: OPEN,DUGOUT
982	RESERVOIR: OPEN,FILTRATION POND
1033	ROCK IN WATER
1044	ROCKY LEDGE/REEF
1044	ROCKY LEDGE/REEF: GENERIC/UNKNOWN
1108	SEAWALL
1108	SEAWALL: GENERIC/UNKNOWN
1163	SLIP
1174	SLUICE GATE
1209	SPRING
1209	SPRING: GENERIC/UNKNOWN
1453	WATER BODY: IRRIGATION CANAL
1503	WHARF
1503	WHARF: UNKNOWN
1514	WIND-OPERATED DEVICE: GENERIC/UNKNOWN
1666	LIQUIDS DEPOT/DUMPS: LIQUID WASTE, SEWAGE POND
1667	LIQUIDS DEPOT/DUMP: LIQUID WASTE, SETTLING POND
1668	LIQUIDS DEPOT/DUMP: LIQUID WASTE, UNKNOWN
1669	LIQUIDS DEPOT/DUMP: WATER, OTHER
1670	LIQUIDS DEPOT/DUMP: WATER, FILTRATION POND
1671	LIQUID DEPOT/DUMP: WATER, DRINKING WATER
1681	HAZARD TO NAVIGATION: ROCK IN WATER
1682	HAZARD TO NAVIGATION: EXPOSED SHIPWRECK
1683	HAZARD TO NAVIGATION: OBSTACLE IN WATER

Data Dictionary *(cont'd)*

Code	Feature
1701	WATER DISTURBANCE: FALLS
1702	WATER DISTURBANCE: RAPID
1710	UNDERGROUND RESERVOIR: GENERIC/UNKNOWN

Data Dictionary *(cont'd)*

Hydrography (hy)

Layer Location

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Layer Structure

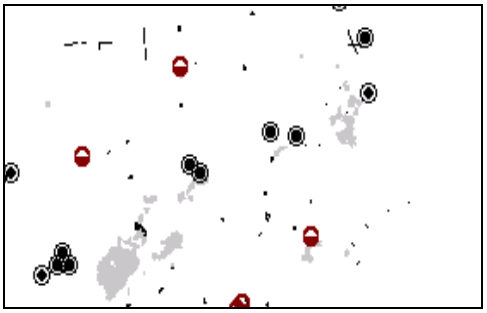
Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
371	DISAPPEARING STREAM: OTHER
372	DISAPPEARING STREAM: SINKHOLE
1450	WATERBODY: INTERMITTENT/SLOUGH
1451	WATERBODY: IN STRING BOG
1452	WATERBODY: OTHER
1454	WATERBODY: FLOODED AREA
1463	WATERCOURSE: UNKNOWN

Data Dictionary *(cont'd)*

Industrial and Resource (ir)



Layer Location

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Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
34	AUTO WRECKER: GENERIC/UNKNOWN
34	AUTO WRECKER
347	CUT LINE: FIREBREAK
348	CUT LINE: OTHER
417	DUMP: ABANDONED
418	DUMP: OTHER
695	LUMBER YARD
695	LUMBER YARD: GENERIC/UNKNOWN
707	MINE: ABANDONED,N/A
708	MINE: OPERATIONAL,OPEN-PIT
709	MINE: OPERATIONAL,OTHER
788	OIL/GAS FACILITIES
788	GAS AND OIL FACILITIES: GENERIC/UNKNOWN
793	OIL OR GAS FIELD: GENERIC/UNKNOWN
898	PIT
923	QUARRY
1231	STOCKPILE
1242	STOCKYARD
1242	STOCKYARD: GENERIC/UNKNOWN
1435	WASTE: OTHER, LIQUID
1436	WASTE: SETTLING POND,LIQUID
1437	WASTE: SEWAGE DISPOSAL POND,LIQUID
1438	WASTE: OTHER,SOLID

Data Dictionary *(cont'd)*

Code	Feature
1656	SOLIDS DEPOT/DUMP: DOMESTIC, WASTE, ABANDONED
1657	SOLIDS DEPOT/DUMP: DOMESTIC, WASTE, OPERATIONAL
1658	SOLIDS DEPOT/DUMP: INDUSTRIAL, WASTE, UNKNOWN
1659	SOLIDS DEPOT/DUMP: INDUSTRIAL, STOCKPILE, UNKNOWN
1690	MINING AREA: UNKNOWN, UNKNOWN, UNKNOWN
1691	MINING AREA: PIT, OPEN PIT, OPERATIONAL
1692	MINING AREA: QUARRY, OPEN PIT, OPERATIONAL
1693	MINING AREA: MINE, OPEN, PIT, OPERATIONAL
1694	MINING AREA: MINE, UNKNOWN, ABANDONED
1697	MINING AREA: MINE, UNDERGROUND, OPERATIONAL

Data Dictionary *(cont'd)*

Land Feature Labels (llp)

Layer Location

\Topo*AREA***llp**

Layer Structure

Field Name	Type	Size	Description
NAME	Character	100	Feature Name
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
1851	TOPONYM: PLACE
1854	TOPONYM: RELIEF
1855	TOPONYM: TRANSPORT

Data Dictionary *(cont'd)*

Land Use (lur)

Layer Location

\Topo*AREA***lur***

Layer Structure

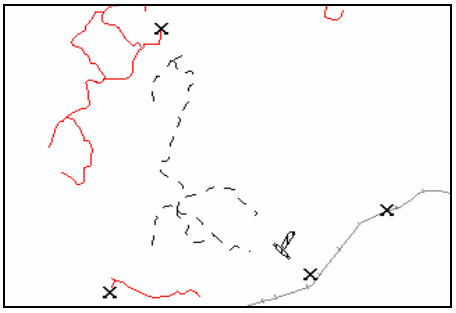
Field Name	Type	Size	Description
CATEGORY	Character	40	Category of Landuse

Field Content

Landuse Categories: Commercial; Government and Institutional; Open Area; Parks and Recreational; Residential; Resource and Industrial; Waterbody.

Data Dictionary *(cont'd)*

Other Transportation (ot)



Layer Location

\Topo*AREA***ot**

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type
NAME	Character	100	Feature Name

Layer Content

Code	Feature
10	AERIAL CABLEWAY: GENERIC/UNKNOWN
11	AERIAL CABLEWAY: OTHER
12	AERIAL CABLEWAY: SKI LIFT
45	BARRIER/GATE: GENERIC/UNKNOWN
46	BARRIER/GATE: OTHER
47	BARRIER/GATE: TOLLGATE
440	EMBANKMENT: GENERIC/UNKNOWN
441	EMBANKMENT: OTHER
442	EMBANKMENT: CAUSEWAY
552	FOOTBRIDGE: GENERIC/UNKNOWN
563	FORD: GENERIC/UNKNOWN
1066	RUNWAY: GENERIC/UNKNOWN
1067	RUNWAY: AIRFIELD, UNKNOWN, UNKNOWN
1068	RUNWAY: AIRFIELD, OPERATIONAL, HARD SURFACE
1069	RUNWAY: AIRFIELD, OPERATIONAL, LOOSE SURFACE
1070	RUNWAY: AIRPORT, OPERATIONAL, HARD SURFACE
1071	RUNWAY: UNKNOWN, ABANDONED, UNKNOWN
1072	RUNWAY: AIRPORT, OPERATIONAL, LOOSE SURFACE
1185	SNOWSHED: GENERIC/UNKNOWN
1376	TUNNEL: GENERIC/UNKNOWN
1387	TURNTABLE: GENERIC/UNKNOWN
1720	HAZARD TO AIR NAVIGATION: GENERIC/UNKNOWN

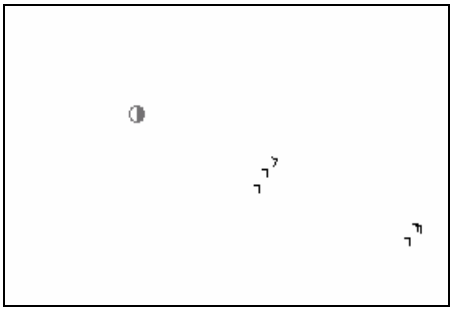
Data Dictionary *(cont'd)*

1721	HAZARD TO AIR NAVIGATION: PARABOLIC ANTENNA
1722	HAZARD TO AIR NAVIGATION: CHIMNEY
1723	HAZARD TO AIR NAVIGATION: TANK
1724	HAZARD TO AIR NAVIGATION: CROSS
1725	HAZARD TO AIR NAVIGATION: WIND-OPERATED DEVICE
1726	HAZARD TO AIR NAVIGATION: CRANE
1727	HAZARD TO AIR NAVIGATION: WATER DISTURBANCE
1728	HAZARD TO AIR NAVIGATION: BRIDGE
1729	HAZARD TO AIR NAVIGATION: NAVIGATIONAL AID
1730	HAZARD TO AIR NAVIGATION: AERIAL CABLEWAY
1731	HAZARD TO AIR NAVIGATION: TOWER

The OT layer also includes the 'PATH'. The PATH is downtown Toronto's underground walkway and links various office towers, parking garages, subway stations, department stores, hotels, tourist attractions, and the Union Station railway terminal.

Data Dictionary *(cont'd)*

Physiography (ph)



Layer Location

\Topo*AREA***ph**

Layer Structure

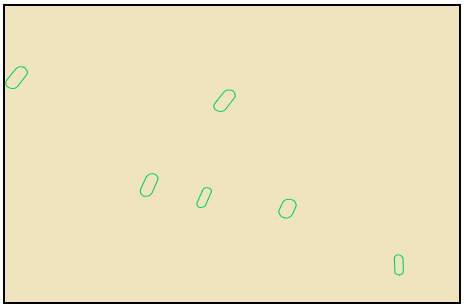
Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
239	CAVE ENTRANCE
239	CAVE ENTRANCE: GENERIC/UNKNOWN
394	DRY RIVER BED
394	DRY RIVER BED: GENERIC/UNKNOWN
451	ESKER
451	ESKER: GENERIC/UNKNOWN
574	FORESHORE FLATS
731	MORAINE: GENERIC/UNKNOWN
1083	SAND: OTHER
1084	SAND: UNDERWATER

Data Dictionary *(cont'd)*

Parks & Recreation Lines (prl)



Layer Location

\Topo*AREA***prl***

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Park or Recreational Feature Code
FEATURE	Character	76	Park or Recreational Feature Type
NAME	Character	68	Park or Recreational Feature Name
TYPE	Character	40	Park Designation example National, Provincial, Territorial Parks
CLASS	Character	40	Park or Recreational Feature Classification example wilderness, heritage or waterway
PROV	Character	2	Provincial/Territorial Abbreviation

Layer Content

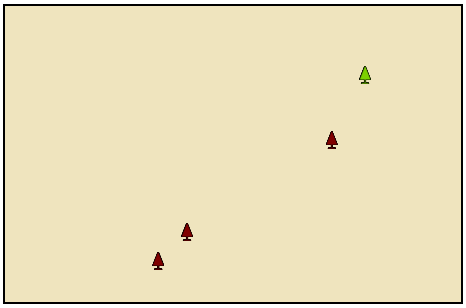
CanMap Parks & Recreation lines layer represents over 2,600 recreation line features across Canada.

Features - Recreational Features

Code	Feature
1198	Sports Track/Race Track: Other

Data Dictionary *(cont'd)*

Parks & Recreation Points (prp)



Layer Location

\Topo*AREA***prp***

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Park or Recreational Feature Code
FEATURE	Character	76	Park or Recreational Feature Type
NAME	Character	68	Park or Recreational Feature Name
TYPE	Character	40	Park Designation example National, Provincial, Territorial Parks
CLASS	Character	40	Park or Recreational Feature Classification example wilderness, heritage or waterway
PROV	Character	2	Provincial/Territorial Abbreviation

Layer Content

CanMap Parks & Recreation points layer represents over 150 national, provincial and territorial parks and over 2,300 recreation areas across Canada.

Features - Parks

Code	Feature
2025	Provincial Parks
2026	Territorial Parks

Features - Recreational

Code	FEATURE
206	Camp: Generic/unknown
217	Campground: Generic/unknown
250	Cemetery: Generic/unknown
607	Golf Driving Range: Generic/unknown
684	Lookout: Generic/unknown
640	Historic Site/Point of Interest
858	Picnic Site: Generic/unknown
1525	Zoo: Generic/unknown
1672	Liquids Depot/dump: Water, Swimming Pool

Data Dictionary *(cont'd)*

Parks Features - Types

Type
Provincial Park
Territorial Park

Parks Features - Classes

Class
Natural Environment
Day Use
Nature Reserve
Recreation/Heritage
Wildlife

Provincial Parks Duplicate Naming

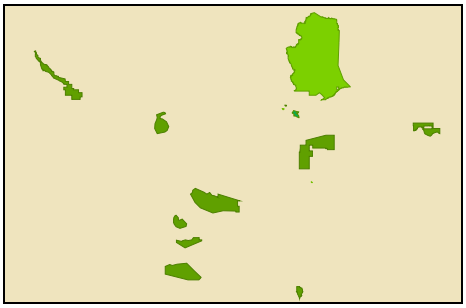
Duplicate naming exists within the Parks & Recreation files. Duplicates exist in the following parks where park boundaries or park names are shared by more than one province:

Park Name	Prov	Prov	Description
Long Point Provincial Park	NS	ON	Park name shared by more then one province
Ten Mile Lake Provincial Park	NS	BC	Park name shared by more then one province
White Lake Provincial Park	ON	BC	Park name shared by more then one province in the points layer

CanMap Parks & Recreation does not represent legal park boundaries. At this time discrepancies may exist between the CanMap Park boundaries and the CANwat boundaries.

Data Dictionary *(cont'd)*

Parks & Recreation Regions (prr)



Layer Location

\Topo*AREA***prr***

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Park or Recreational Feature Code
FEATURE	Character	76	Park or Recreational Feature Type
NAME	Character	68	Park or Recreational Feature Name
TYPE	Character	40	Park Designation example National, Provincial, Territorial Parks
CLASS	Character	40	Park or Recreational Feature Classification example wilderness, heritage or waterway
PROV	Character	2	Provincial/Territorial Abbreviation

Layer Content

CanMap Parks & Recreation regions layer represents over 1,600 national, provincial and territorial parks and over 14,000 recreation areas across Canada.

Features - Park Features

Code	Feature
2021	National Parks Polygons
2022	National Wildlife Area
2023	Migratory Bird Sanctuary
2025	Provincial Parks
2026	Territorial Parks
2027	Other Parks

Data Dictionary *(cont'd)*

Features - Recreational Features

Code	Feature
23	Amusement Park: Generic/unknown
69	Botanical Garden: Generic/unknown
217	Campground: Generic/unknown
250	Cemetery: Generic/unknown
383	Drive-in Theatre: Generic/unknown
463	Exhibition Ground: Fairground
464	Exhibition Ground: Other
596	Golf Course: Generic/unknown
607	Golf Driving Range: Generic/unknown
640	Historic Site/Point of Interest
684	Lookout: Generic/unknown
823	Parks/sports Field: Generic/unknown
858	Picnic Site: Generic/unknown
1197	Sports Track/Race Track/Drag Strip
1525	Zoo: Generic/unknown
1672	Liquids Depot/dump: Water, Swimming Pool

Parks Features - Types

Type
National Park
Provincial Park
Territorial Park
Park Reserve
Ecological Reserve
Wildland Park
Wilderness Area
Wilderness Park
Protected Area
Park Area
Recreation Area
Grizzly Bear Sanctuary
Natural Area
National Wildlife Area
Migratory Bird Sancurary

Data Dictionary *(cont'd)*

Parks Features - Classes

Class
Wilderness
Natural Environment
Heritage
Day Use
Camping
Waterway
Recreation
Nature Reserve
Historical
Recreation/Heritage
Ecological
Conservation
Education

Federal Parks Duplicate Naming

Duplicate naming exists within the Parks & Recreation files. Duplicates exist in the following parks where park boundaries are shared by more than one province:

Park Name	Prov	Prov	Description
St. Clair National Wildlife Area	ON	SK	Park boundary shared by more then one province
Tuktut Nogait National Park	NU	NT	Park boundary shared by more then one province
Wood Buffalo National Park	AB	NT	Park boundary shared by more then one province

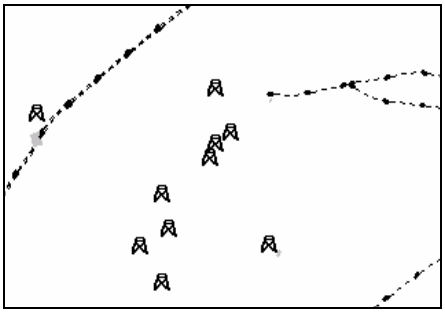
Provincial Parks Duplicate Naming

Duplicate naming exists within the Parks & Recreation files. Duplicates exist in the following parks where park boundaries or park names are shared by more than one province:

Park Name	Prov	Prov	Description
Cypress Hills Provincial Park	AB	SK	Park boundary shared by more then one province
Duck Mountain Provincial Park	SK	MB	Park name shared by more then one province
Long Lake Provincial Park	NS	AB	Park name shared by more then one province
Long Point Provincial Park	NS	ON	Park name shared by more then one province
Mara Provincial Park	ON	BC	Park name shared by more then one province
Sandbanks Provincial Park	ON	NL	Park name shared by more then one province
Silver Lake Provincial Park	ON	BC	Park name shared by more then one province
Ten Mile Lake Provincial Park	NS	BC	Park name shared by more then one province
White Lake Provincial Park	ON	BC	Park name shared by more then one province

Data Dictionary *(cont'd)*

Pipelines and Transmission (pt)



Layer Location
\Topo\ *AREA***pt**

Layer Structure

Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
881	PIPELINE: NATURAL GAS, ABOVEGROUND
881	PIPELINE: NATURAL GAS ,ABOVEGROUND
882	PIPELINE: NATURAL GAS,UNDERGROUND
882	PIPELINE: NATURAL GAS, UNDERGROUND
883	PIPELINE: OIL,ABOVEGROUND
883	PIPELINE: OIL ABOVEGROUND
884	PIPELINE: OIL UNDERGROUND
884	PIPELINE: OIL,UNDERGROUND
885	PIPELINE: SEWAGE/WASTE, ABOVEGROUND
885	PIPELINE: SEWAGE/WASTE,ABOVEGROUND
886	PIPELINE: UNKNOWN,ABOVEGROUND
886	PIPELINE: UNKNOWN, ABOVEGROUND
887	PIPELINE: UNKNOWN,UNDERGROUND
887	PIPELINE: UNKNOWN, UNDERGROUND
890	PIPELINE: MULTIUSE, ABOVEGROUND
891	PIPELINE: MULTIUSE, UNDERGROUND
1318	TRANSFORMER STATION (ELECTRIC)
1318	TRANSFORMER STATION: GENERIC/UNKNOWN
1330	TRANSMISSION LINE: POWER,OTHER
1330	TRANSMISSION LINE: POWER, OTHER
1331	TRANSMISSION LINE: POWER, SUBMARINE

Data Dictionary *(cont'd)*

Code	Feature
1331	TRANSMISSION LINE: POWER,SUBMARINE
1332	TRANSMISSION LINE: TELEPHONE,OTHER
1332	TRANSMISSION LINE: TELEPHONE, OTHER
1398	VALVE: GENERIC/UNKNOWN
1398	VALVE

Data Dictionary *(cont'd)*

Railway and Transit Lines (rll)

Layer Location

\Topo*AREA***rll**

Layer Structure

Field Name	Type	Size	Description
OWNER	Char	68	Railway Owner/Operator
CARTO	Decimal	3,0	Cartographic Rail Classification
ACCESS1	Char	50	Alternate Railway Owner/Operator
ACCESS2	Char	50	Alternate Railway Owner/Operator
ACCESS3	Char	50	Alternate Railway Owner/Operator
TRS_RTE	Char	68	Transit Route
RTE_TYPE	Char	3	Route Type
PROV	Char	2	Province
US_RAILCO	Char	15	American owner/operator of connecting US railway line
US_STP	Char	50	American railway station of entry on connecting US railway line
US_STATE	Char	2	American State the connecting US railway line enters
CR	Decimal	1,0	Transit: Commuter Rail Flag
LRT	Decimal	1,0	Transit: Light Rail Flag
RT	Decimal	1,0	Transit: Rapid Transit Flag
CODE	Decimal	4,0	Classification Code
FEATURE	Char	76	Railway Feature Type
RL_ID	Decimal	9,0	Railway unique identifier (Unique ID)

Data Dictionary *(cont'd)*

- Rail Transit lines have been integrated with the Railway lines. The TRS_TYPE and RTE_TYPE fields have been added to the Railway lines in order to accomadate the transit data. Three flag fields CR, LRT and RT have been included so that Rail Transit lines can be queried out to create a separate transit layer. In cases where a transit line has shared access with a railway line, the OWNER field will contain the railway data and the transit data will be contained in one of the ACCESS fields.

- The MAIN, SIDETRACK and ABANDONED fields have been removed and replaced by a new CARTO field that includes rail classifications for each of those categories and a transit carto. See Appendix A : Cartographic Road and Rail Classifications for carto descriptions.

Layer Content

CODE	FEATURE
91	BRIDGE
935	RAILWAY: ABANDONED
961	RAILWAY: SPECIAL, OTHER, OPERATIONAL, SINGLE
962	RAILWAY: OPERATIONAL
963	RAILWAY: OPERATIONAL, SIDETRACK
1376	TUNNEL

Transit Definitions

Commuter rail (CR) is a transit railway within urbanized areas, or between urbanized areas and outlying suburbs and regions within commuting distance. These transit lines are often shared with Railway lines.

Rapid Transit (RT) (**metro**, **subway)** is a high speed transit railway at ground level or below within urbanized areas.

Light rail (LRT) (**streetcar**, **tramway**, **automated guideway transit**) is a transit railway that operates on a loop within the central business district of a city or connecting the business district to its suburbs.

Data Dictionary *(cont'd)*

Vegetation (ver)

Layer Location

\Topo*AREA***ver***

Layer Structure

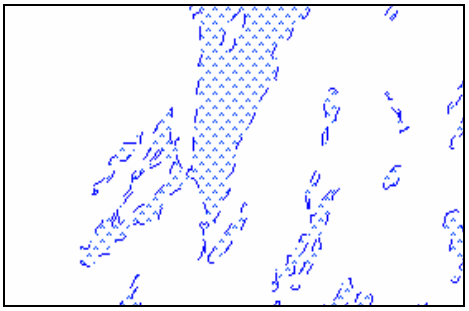
Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
834	PEAT CUTTING
834	PEAT CUTTING: GENERIC/UNKNOWN
1343	TREE NURSERY
1410	VEGETATION: ORCHARD
1411	VEGETATION: VINEYARD/HOPFIELD
1412	VEGETATION: WOODED AREA
1413	VEGETATION: TREE NURSERY

Data Dictionary *(cont'd)*

Wetlands (wer)



Layer Location

\Topo*AREA***wer***

Layer Structure

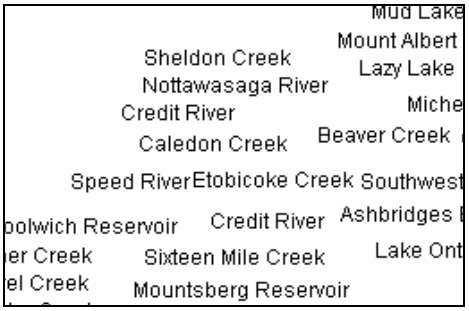
Field Name	Type	Size	Description
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
1253	STRING BOG
1253	STRING BOG: GENERIC/UNKNOWN
1492	WETLAND
1492	WETLAND: GENERIC/UNKNOWN

Data Dictionary *(cont'd)*

Water Feature Labels (wlp)



Layer Location

\Topo*AREA***wlp***

Layer Structure

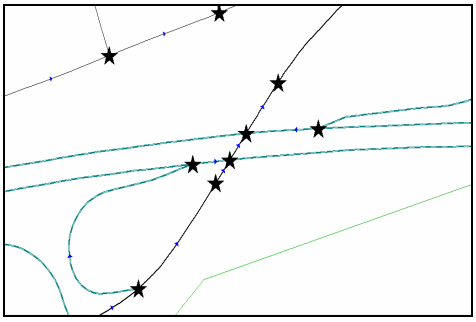
Field Name	Type	Size	Description
NAME	Character	100	Feature Name
CODE	Decimal	4,0	Feature Code
FEATURE	Character	76	Feature Type

Layer Content

Code	Feature
1852	TOPONYM: HYDROGRAPHY
1853	TOPONYM: SHORELINE

Data Dictionary *(cont'd)*

Relative Elevation Nodes (ren)



Layer Location

\Streets*AREA***ren**

Layer Structure

Field Name	Type	Size	Description
NODE_ID	Decimal	8,0	Unique Identifier of node
REL_E	Decimal	2,0	Relative Elevation Value of node
LONGITUDE	Decimal	11,6	Longitude location of node
LATITUDE	Decimal	11,6	Latitude location of node
INTRSCTION	Decimal	1,0	Flag indicating whether node is an intersection of two or more segments or a dead end. (1 = Intersection, 0 = Dead End)

Layer Content

Relative elevation differentiates coincident nodes of varying elevation and outlines relationships between street segments on different planes via node-and-segment connectivity. Relative Elevation Nodes (ren) are a work-around for inherent limitations when navigating through three-dimensional street networks represented on the two-dimensional plane (i.e. computer screen).

Ren help to establish routing options and are particularly useful where complex overpass/underpass structures exist because they indicate street segments as being on different road-levels; where on the computer screen all streets appear to be connected. For example, one can discern the physical relationship of an overpass to the street below and determine that a turn directly from the overpass to the street is prohibited. The ren layer, coupled with the Turn Restrictions Table (trn), generates the most accurate routing.

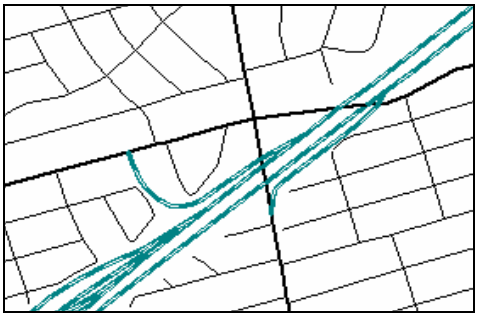
Rule: Travel is permitted between street segments connected by a common node and prohibited between street segments not sharing a common node. A common node (where the FROMNODE value of one segment equals the TONODE value of another) implies a node of same relative elevation and a turning possibility. Conversely, where a common node does not exist (implying a prohibited turn) there are two (or more) nodes stacked directly on top of each other-- each with a different relative elevation.

Each respective street segment has two ren associated with it; one at the fromnode and the other at the tonode. Additionally, a street will connect to another street via a common node of the same relative elevation.

Note: REL_ELEV values are Integer, greater than or equal to zero, depicting the relative elevation or plane associated with a particular street segment. Actual elevations and true ground relationships of “higher- level” and “lower- level” streets are not represented by this field.

Data Dictionary *(cont'd)*

Roads (rte)



Layer Location

\Streets*AREA***rte**

Layer Structure

Field Name	Type	Size	Description
STREET[25]	Character	69	Street Title (comprised of PRETYPE, PREDIR, STREETNAME, SUFTYPE, SUFDIR)
FROMLEFT	Decimal	6,0	Address on the Left side at the From end of the street segment
TOLEFT	Decimal	6,0	Address on the Left side at the To end of the street segment
FROMRIGHT	Decimal	6,0	Address on the Right side at the From end of the street segment
TORIGHT	Decimal	6,0	Address on the Right side at the To end of the street segment
PREDIR	Character	2	Prefix Direction component of the Street Title (e.g. **W** 5 St)
PRETYPE	Character	10	Prefix StreetType component of the Street Title (e.g. **Rue** Jean)
STREETNAME	Character	45	StreetName component of the Street Title (e.g. **John** St E)
SUFTYPE	Character	10	Suffix StreetType component of the Street Title (e.g. John **St** E)
SUFDIR	Character	2	Suffix Direction component of the Street Title (e.g. John St **E**)
CARTO[26]	Decimal	3,0	Cartographic Road Classification
LEFT_MUN[27]	Character	70	Municipality
RIGHT_MUN[27]	Character	70	Municipality
LEFT_MAF	Character	70	Municipal Amalgamation
RIGHT_MAF	Character	70	Municipal Amalgamation
LEFT_FSA	Character	3	Forward Sortation Area
RIGHT_FSA	Character	3	Forward Sortation Area
LEFT_PRV	Character	2	Province Abbreviation
RIGHT_PRV	Character	2	Province Abbreviation
UNIQUEID	Decimal	9,0	Unique Identifier of Street segment
ONEWAY	Decimal	1,0	One Way flag
RTE_HIRCHY[28]	Decimal	3,0	Route Hierarchy classification

[25] For more information refer to Appendix C: Street Types and Street Directions
[26] For more information refer to Appendix D: Cartographic Road Classifications
[27] Source: Statistics Canada, Standard Geographical Classification (SGC), 2001
[28] For more information refer to Appendix E: Routing Hierarchy

Data Dictionary *(cont'd)*

Field Name	Type	Size	Description
RSH_TRFFC	Decimal	1,0	Road segment inundated with vehicular traffic during the rush hour. 1= rush hour traffic, 0= no rush hour traffic
MEDIAN	Decimal	1,0	Single-line road segment with a median separating traffic. 1= median, 0= no median
ROAD_DIR	Character	2	Road segment direction: FROMNODE to TONODE (FT) or TONODE to FROMNODE (TF)
FROMNODE	Decimal	9,0	Node begins road segment
TONODE	Decimal	9,0	Node ends road segment
SPDLMT_KM	Decimal	3,0	Maximum speed limit for a road segment—80% are legal posted speed limits
SPD_MI	Decimal	3,0	Estimated speed limit (miles per hour)
RDLEN_MI	Decimal	7,3	Length of road segment (miles)
SPD_KM	Decimal	3,0	Estimated speed limit (km per hour)
RDLEN_M	Decimal	10,3	Length of road segment (meters)
TRVLTIM	Decimal	8,3	Estimated travel time (minutes) based on speed limit and road length
RDLEN_MI_E	Decimal	7,3	Adjusted road length (miles) calculated using actual distance with elevation
RDLEN_M_E	Decimal	10,3	Adjusted road length (meters) calculated using actual distance with elevation
TRVLTIM_E	Decimal	8,3	Estimated travel time (minutes) based on speed limit and actual road length with elevation

Field Content

Estimated Speed limits are derived using the Carto value of a Road Segment and the Population Density in the vicinity of the Road Segment. Populated areas have a population density of at least 100 persons per square kilometer; Sparsely Populated areas have a population density of less than 100 persons per square kilometer.

Carto	Population Density	Speed Limit (km/h) SPEEDKM	Speed Limit (mph) SPEEDMILES
1	All	100	60
2	Populated	80	50
2	Sparsely Populated	80	50
3	Populated	60	40
3	Sparsely Populated	80	50
4	Populated	60	40
4	Sparsely Populated	80	50
5	Populated	50	30
5	Sparsely Populated	80	50
6+	All	10	6
All	All Ramps	50	30

Data Dictionary *(cont'd)*

These highway routes are flagged in the Roads Lookup Table (rds_lut):

- TransCanada Hwy
- Yellowhead Hwy
- Alaskan Hwy
- Cariboo Hwy
- Crowsnest Hwy
- Dempster Hwy
- John Hart Hwy
- Klondike Hwy
- Mackenzie Hwy

Notes:

- Address fields contain "zeros" for street segments without addresses
- Ramps connecting flagged highway routes are not considered part of the highway route system
- Ferry Ramps connect Ferry Routes to the street network
- As of CanMap v8.2 the Municipality (_MUN) fields are attributed with 2001 Census based Municipality names. 1996 Census based Municipality names can be obtained by linking the **rte** layer to the **rds_lut** layer via the UNIQUEID and RDS_ID fields
- ESRI users: as of CanMap v8.2 all geocoding indexes have been created using 2001 Census based Municipality names
- As of v2005.1, SPDLMT_KM attribution will be updated on an ongoing basis as part of the production cycle

Data Dictionary *(cont'd)*

Routes Look Up Table (rte_lut)[29]

Table Location

\Streets*AREA***rte_lut**

Table Structure

Field Name	Type	Size	Description
RDS_ID	Decimal	9,0	Unique Identifier of related Routes (rte) segment
ON_RAMP	Decimal	1,0	1 = On Ramp, 0 = not an On Ramp
OFF_RAMP	Decimal	1,0	1 = Off Ramp, 0 = not an Off Ramp
GRAD_FC	Decimal	6,3	Gradient between the From Node and the segment Centroid
GRAD_CT	Decimal	6,3	Gradient between the segment Centroid and the To Node
DIST_FC	Decimal	10,3	Distance along the gradient between the From Node and segment Centroid
DIST_CT	Decimal	10,3	Distance along the gradient between the segment Centroid and the To Node
EXIT_NUM	Character	30	Highway Exit Number
EXIT_DIR	Character	2	Ramp Exit Direction
FERRY_TYPE	Character	68	Ferry Route Type (i.e. Passenger, Vehicle, etc.)

Field Content

Ferry Types information included:

Ferry Types
Canadian Passenger & Freight Ferry
US Passenger & Freight Ferry
Private Passenger & Freight Ferry
Canadian Passenger & Freight Ferry/Ice Road
US Passenger & Freight Passenger Ferry/Ice Road
Private Passenger & Freight Ferry/Ice Road

[29] For more information on joining the rte_lut Table to the rds Layer refer to Appendix K: Joining the rte Layer and rds_lut Table

Data Dictionary *(cont'd)*

Turn Restrictions Table (trn)

Table Location

\Streets*AREA***trn**

Table Structure

Field Name	Type	Size	Description
TURN_ID	Decimal	9,0	Unique Identifier of Turn Restriction
RDS_ID	Decimal	9,0	Unique Identifier of Road Segment traveling upon
RES_RDS_ID	Decimal	9,0	Unique identifier of Road Segment to which a turn is prohibited
VIA_RDS_ID	Decimal	9,0	Unique Identifier of Road Segment that would have to be traveled upon to execute the prohibited turn to Res_Rds_Id (u-turn on a double-lined road)
TRVLDIR	Character	5	Traveling Direction of Road Segment
TYPE	Character	10	Type of prohibited turn (Left, Right, Straight, U-turn) when a legislated turn restriction exists
TIME1_FROM	Character	8	Start Time of Turn Restriction
TIME1_TO	Character	8	End Time of Turn Restriction
TIME2_FROM	Character	8	Start Time of Turn Restriction
TIME2_TO	Character	8	End Time of Turn Restriction
DAT_FROM	Character	10	First Day of turn restriction
DAY_TO	Character	10	Last Day of turn restriction
ON_RED_SIG	Decimal	1,0	1 = No Turn on Red, 0 = Turn on any Signal
AUTH_VEHIC	Decimal	1,0	1 = Authorized Vehicles only, 0 = all Vehicles Excepted
BUS_EXCEPT	Decimal	1,0	1 = Buses Excepted, 0 = No Exceptions
LEGISLATED	Decimal	1,0	1 = Legislated, 0 = Non-Legislated
PROV	Character	2	Province Abbreviation

Table Content

Turn restrictions identify road segments on which it is prohibited to turn from one street segment to another. There are two different classifications of turn restrictions; legislated and non-legislated.

Legislated Turn Restrictions are prohibited turning movements set out by municipal bylaw where signage is posted. One, or a combination of several restrictions may be listed. Example: No left turn from 6 a.m. to 9 a.m., Monday through Friday.

Non-legislated Turn Restrictions are physical restrictions that restrict turning movements-- options that would be considered valid otherwise if the physical restriction was not captured. An example of this situation is the overpass crossing over another street. In this scenario, a turn cannot be made directly from the overpass to the road below and vice versa.

Data Dictionary *(cont'd)*

Transportation Route Restrictions (trr)

Table Location

\Streets*AREA***trr**

Table Structure

Field Name	Type	Size	Description
RDS_ID	Decimal	9,0	Unique Identifier of Transportation Route Restriction
RES_TRUCK	Decimal	1,0	1 = Heavy Trucks prohibited, 0 = Heavy Trucks allowed
TIME_FROM	Character	8	Start Time of Restriction
TIME_TO	Character	8	End Time of Restriction
DAY_FROM	Character	10	First Day of Restriction
DAY_TO	Character	10	Last Day of Restriction
RESWGT_FUL	Decimal	6,0	Maximum Weight Capacity of road
PROV	Character	2	Province Abbreviation

Table Content

Transportation Route Restrictions identify streets designated as heavy truck routes as defined by a particular municipality. Current coverage includes the CMA boundaries for the 13 capital cities of each province and territory, the capital of Canada, and cities having a combined 1996 Census population of 500 000 or greater. The exception is Iqaluit where only the CSD boundary was utilized.

The Transportation Route Restrictions file is a lookup table that can be linked back to the Roads (rte) file via RDS_ID in trr and UNIQUEID in rte.

CMAs Included[30]

Prov	CMA Name	1996 Population	Heavy Truck Weight (kg)
AB	CALGARY	821,628	5,450
AB	EDMONTON	862,597	4,500
BC	VANCOUVER[31]	1,831,665	10,000
BC	VICTORIA[32]	304,287	22,000
MB	WINNIPEG	667,209	24,300
NB	FREDERICTON	78,950	10,000
NF	ST. JOHN'S	174,051	3,000
NS	HALIFAX	332,518	3,000
NT	YELLOWKNIFE	17,275	N/A
NU	IQALUIT (CSD)	N/A	N/A
ON	HAMILTON	624,360	4,000
ON	TORONTO	4,263,757	5,000
ON/QC	OTTAWA/HULL	1,010,498	4,500/ 3,000
PE	CHARLOTTETOWN	57,224	N/A

[30] For a complete listing of all CSDs contained within the CMA boundaries refer to Appendix F: Transportation Route Restrictions
[31] Exceptions: Port Coquitlam - 4,600 kg; Richmond - 5,000 kg
[32] Exception: District of Saanich – 5,500 kg

Data Dictionary *(cont'd)*

Prov	CMA Name	1996 Population	Heavy Truck Weight (kg)
QC	MONTREAL	3,326,510	3,000
QC	QUEBEC	671,889	3,000
SK	REGINA	193,652	9,000
YT	WHITEHORSE	21,808	N/A

Heavy Truck Weight is defined as the maximum weight permitted before a vehicle is deemed a heavy truck, designated by a particular municipality. A truck with a weight of 2 500 kg in Montreal is not considered a heavy truck and can therefore travel on all routes within the municipality. Conversely, a truck with a weight of 3 000 kg would be considered a heavy truck in Montreal and must therefore adhere to travel on specified truck routes. Emergency vehicles and, in most cases, school busses are not restricted by heavy truck routes.

Some Municipalities have time and day information associated with heavy truck restrictions:

RDS_ID	RES_TRUCK	TIME_FROM	TIME_TO	DAY_FROM	DAY_TO	RESWGT_FUL	PROV
1,575,467	1	7:00 PM	7:00 AM	Monday	Saturday	0	MB
2,246,640	1	9:00 PM	7:00 AM	(none)	(none)	0	NS

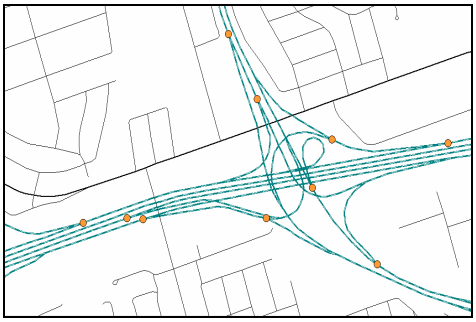
The first record would be interpreted: "Street segment 1575467 has a heavy truck restriction between 7:00 p.m. and 7:00 a.m. from Monday to Saturday."

The second record would be interpreted: "Street segment 2246640 has a heavy truck restriction between 9:00 p.m. and 7:00 a.m. on every day of the week.

Note: Time component fields (TIME_FROM, TIME_TO) are not populated for street segments where heavy truck restrictions do not exist (i.e. RES_TRUCK = 0).

Data Dictionary *(cont'd)*

Highway Exits (xit)



Layer Location

\Streets*AREA***xit**

Layer Structure

Field Name	Type	Size	Description
EXIT_NUM	Character	30	Highway Exit Number
EXIT_DIR	Character	2	Direction of Exit ramp

Layer Content

The exit layer is comprised of points containing exit number and direction attribution. Exit sourcing is only available for the provinces of British Columbia, New Brunswick, Nova Scotia, Ontario, Quebec and Newfoundland.

- EXIT_NUM field contains comma-delimited records where multiple exit numbers exist. 356, 357 – denotes exit 356 and exit 357
- STREET field from rds table contains ampersand-delimited records where multiple exit numbers exist: "HIGHWAY 401 (EXIT 356 & 357)"
- EXIT_DIR field direction attribution is associated with the exit number only

Data Dictionary *(cont'd)*

Sample Summary of Roads (rte) Segments updated with Highway Exit Number Information

STREET (rte)	**PRETYPE** (rte)	**SUFTYPE** (rte)	**STREET** (rte)	**EXIT_NUM** (rte_lut)	**EXIT_DIR** (rte_lut)
		RAMP	EXIT 163	163	
		RAMP	EXIT 107 N	107	N
		RAMP	EXIT 293 (COLLEGE HILL RD[33])	293 (COLLEGE HILL RD)	
		RAMP	EXIT 6 (HIGHWAY 7) N	6 (HIGHWAY 7)	N
HIGHWAY 8 BYPASS	HWY		HIGHWAY 8 BYPASS (EXIT 278[34])	278	
POINT ACONI RD N		RD	POINT ACONI RD N (EXIT 18)	18	
ALDER POINT RD		RD	ALDER POINT RD (EXIT 19 N)	19	N
		ÉCH	SORTIE 202	202	
		ÉCH	SORTIE 100 S	100	S
		ÉCH	SORTIE 21 (COTE D'ABRAHAM)	21 (COTE D'ABRAHAM)	
		ÉCH	SORTIE 21 (AUT DES LAURENTIDES) N	21 (AUT DES LAURENTIDES)	N
ROUTE 185	RTE		ROUTE 185 (SORTIE 499)	499	
BOUL PERROT N	BOUL		BOUL PERROT N (SORTIE 37)	37	
ROUTE 132	RTE		ROUTE 132 (SORTIE 601 N)	601	N
		ÉCH	SORTIE 76 & 77	76, 77	
		RAMP	EXIT 29 & 31	29, 31	
		ÉCH	SORTIE 78 & 82 & 83	78, 82, 83	
HIGHWAY 401	HWY		HIGHWAY 401 (COLLECTORS TO EXPRESS)	COLLECTORS TO EXPRESS	
HIGHWAY 401	HWY		HIGHWAY 401 (EXPRESS TO COLLECTORS)	EXPRESS TO COLLECTORS	
HIGHWAY 401	HWY		HIGHWAY 401 (TO COLLECTORS)	TO COLLECTORS	
HIGHWAY 401	HWY		HIGHWAY 401 (TO EXPRESS)	TO EXPRESS	
		RAMP	TO EXPRESS	TO EXPRESS	
		RAMP	TO COLLECTORS	TO COLLECTORS	

A One-to-One relationship exists between the Highway Exit Numbers and the Road (rte) segments updated with Exit Number information and only segments intersecting an exit point are updated with exit information. (The majority of these segments are designated as RAMP or ÉCH (échangeur) in the Roads (rte) SufType field)

[33] Parentheses contain the name of the street being exited to
[34] Parentheses contain the exit number associated with the named road

Data Dictionary *(cont'd)*

Diagram A – Basic Ramp System with Naming Conventions

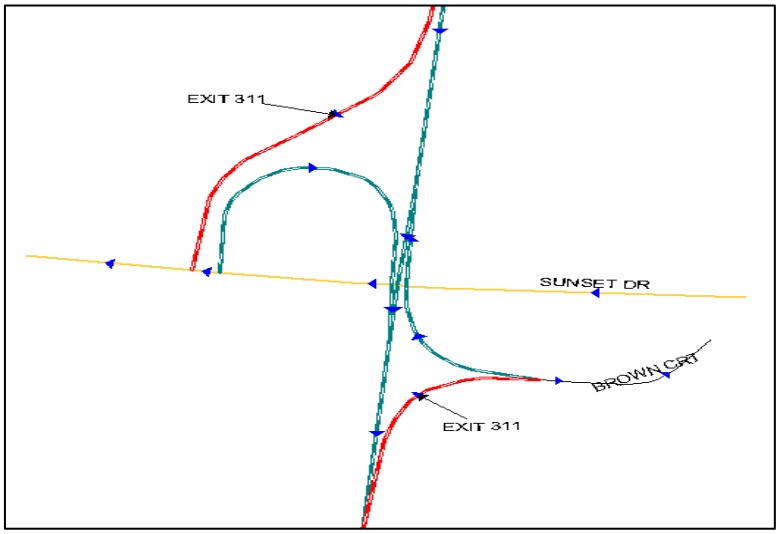
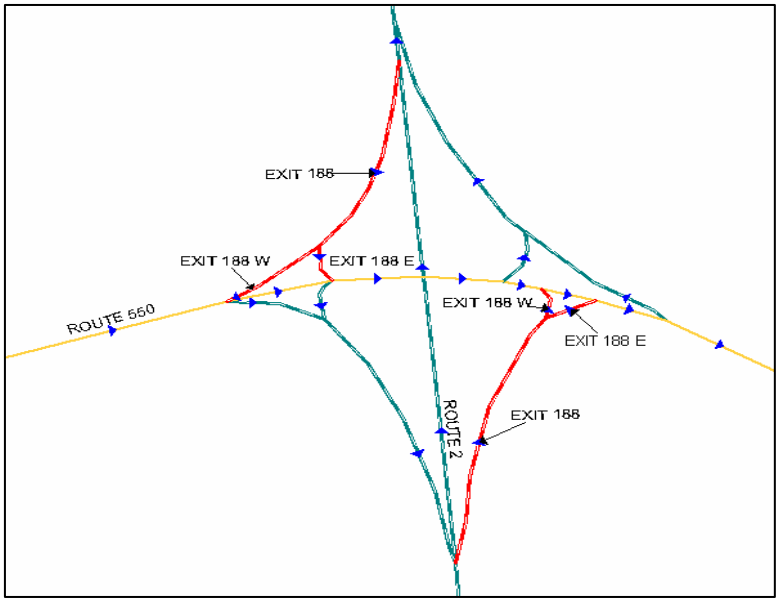


Diagram B – Basic Ramp System with Naming and Directionality Conventions



Data Dictionary *(cont'd)*

Diagram C – Naming conventions in Accessing and Exiting Collector and Express Lanes (Highway 400 in the Greater Toronto Area in Ontario)

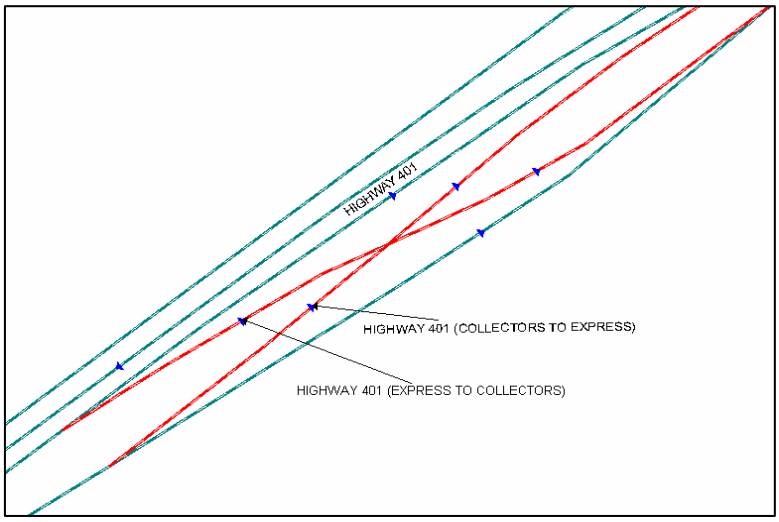
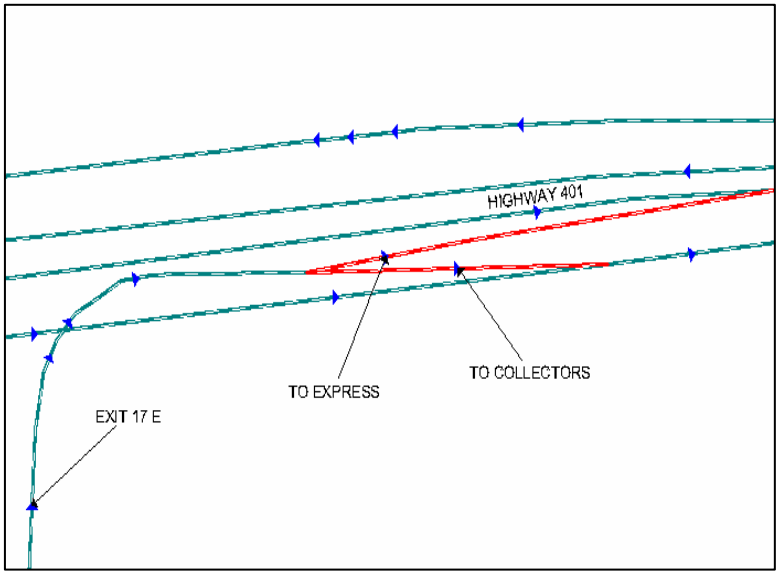


Diagram D – Exiting an Off Ramp with a choice to take Express or Collector Lanes (Scenario 1)



Data Dictionary *(cont'd)*

Diagram E – Exiting an Off Ramp with a choice to take Express or Collector Lanes (Scenario 2)

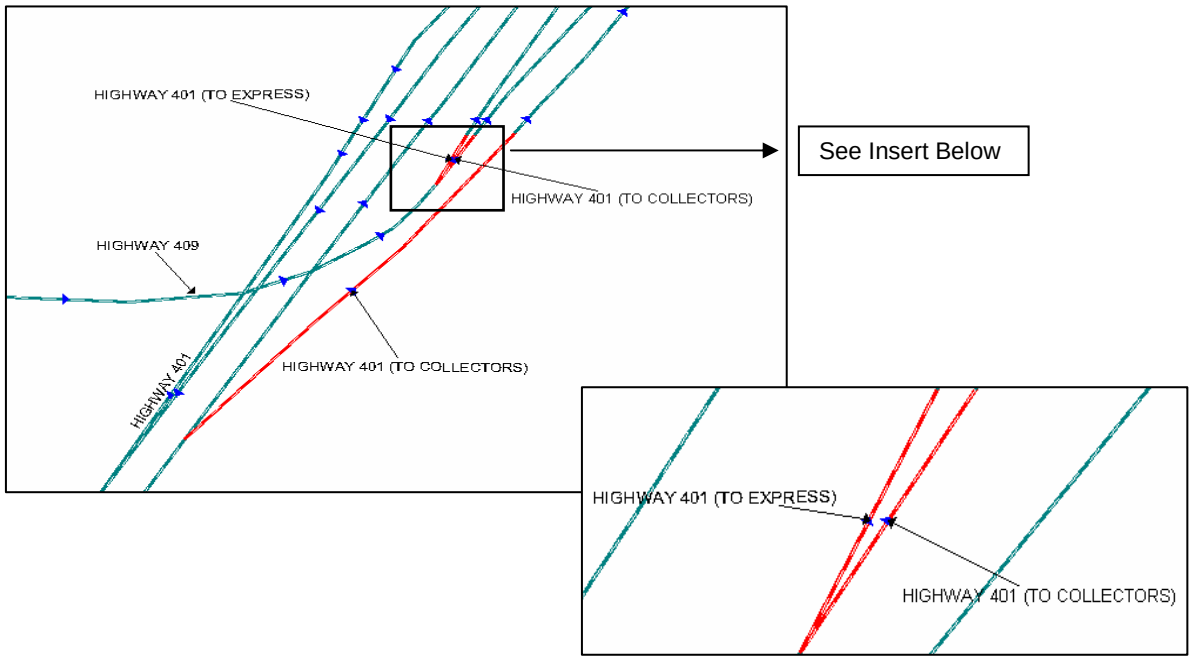
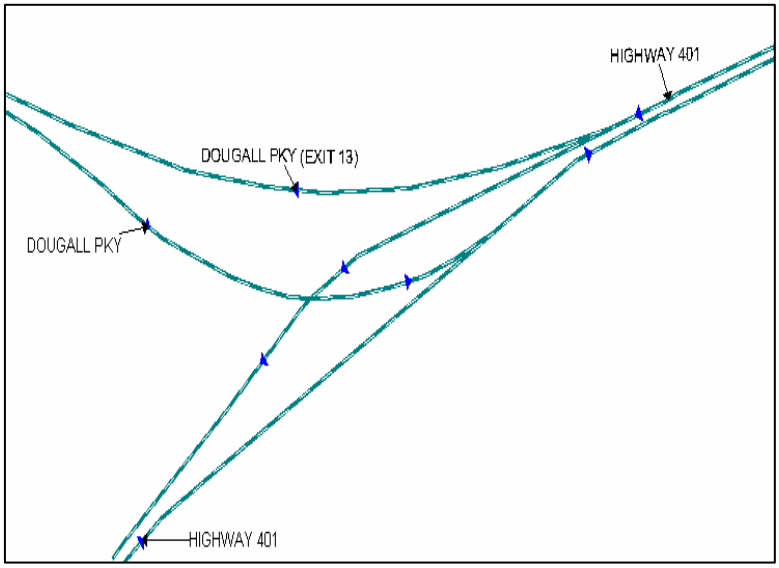


Diagram F **– Named Road Segment acting as an Off Ramp**



Data Dictionary *(cont'd)*

Diagram G – Multiple Exits from one Off Ramp

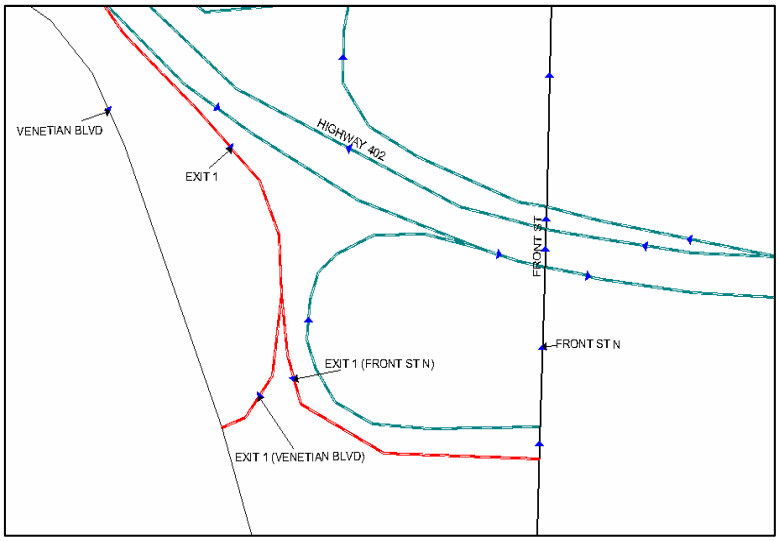
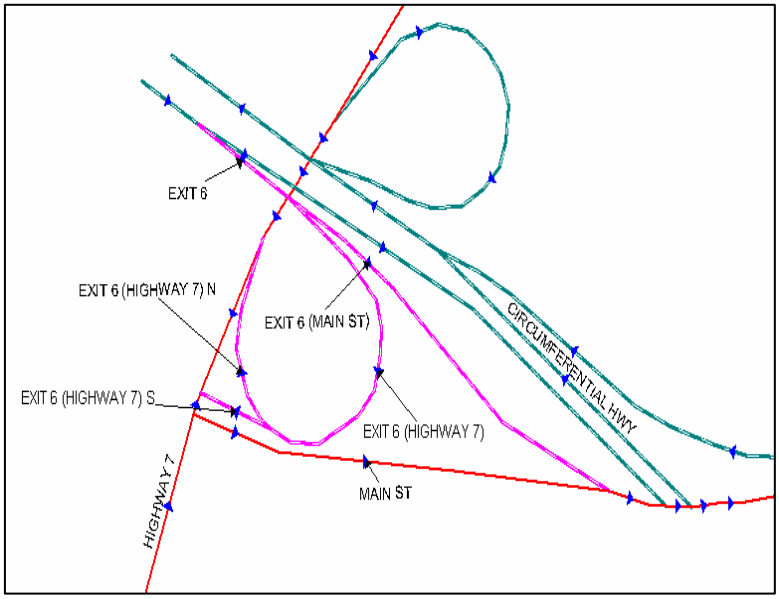


Diagram H – Multiple Exits from one Off Ramp with Direction



Appendix A: ESRI® File Extensions

Refer to the following table for descriptions of ESRI file extensions. All file extensions are not available for all DMTI products.

File Extension	ArcView	ArcGIS	Both	File Description
*.shp			x	Part of standard ESRI Shapefile
*.shx			x	Part of standard ESRI Shapefile
*.dbf			x	Part of standard ESRI Shapefile
*.aih	x			Part of Attribute Index
*.ain	x			Part of Attribute Index
*.sbn			x	Part of Spatial Index
*.sbx			x	Part of Spatial Index
*.avl	x			Legend Properties
*.lyr		x		Layer Properties
*.prj		x		Datum and Projection Properties
*.apr	x			ArcView Project file
*.mxd		x		ArcGIS Project file

Appendix B: MapInfo® Professional File Extensions

Refer to the following table for descriptions of MapInfo file extensions.

File Extension	File Description
*.dat	Attribute Data
*.id	Graphic Index
*.ind	Attribute Index
*.map	Graphic Data
*.tab	Tab File
*.wor	Workspace

Appendix C: Street Types and Street Directions[35]

Street Types

Street Types used in the CanMap® suite of products correspond to the standard abbreviations used by Canada Post. The Language column distinguishes between street types in English (E) and street types in French (F).

Street Type	Abbreviation	Language
Abbey	ABBEY	E
Acres	ACRES	E
Allée	ALLÉE	F
Alley	ALLEY	E
Autoroute	AUT	F
Avenue	AV	F
Avenue	AVE	E
Bay	BAY	E
Beach	BEACH	E
Bend	BEND	E
Boulevard	BLVD	E
Boulevard	BOUL	F
By-Pass	BYPASS	E
Byway	BYWAY	E
Centre	C	F
Campus	CAMPUS	E
Cape	CAPE	E
Carr	CAR	F
Carrefour	CARREF	F
Cul-de-sac	CDS	E
Cercle	CERCLE	F
Chemin	CH	F
Chase	CHASE	E
Circle	CIR	E
Circuit	CIRCT	E
Close	CLOSE	E
Common	COMMON	E
Concession	CONC	E
Côte	CÔTE	F
Cour	COUR	F
Cours	COURS	F
Cove	COVE	E

Street Type	Abbreviation	Language
Crescent	CRES	E
Corners	CRNRS	E
Croissant	CROIS	F
Crossing	CROSS	E
Court	CRT	E
Centre	CTR	E
Dale	DALE	E
Dell	DELL	E
Diversion	DIVERS	E
Downs	DOWNS	E
Drive	DR	E
Échangeur	ÉCH	F
End	END	E
Esplanade	ESPL	E
Estates	ESTATE	E
Expressway	EXPY	E
Extension	EXTEN	E
Farm	FARM	E
Field	FIELD	E
Forest	FOREST	E
Front	FRONT	E
Freeway	FWY	E
Gate	GATE	E
Gardens	GDNS	E
Glade	GLADE	E
Glen	GLEN	E
Green	GREEN	E
Grounds	GRNDS	E
Grove	GROVE	E
Harbour	HARBR	E
Heath	HEATH	E
Highlands	HGHLDS	E

[35] Source: Canada Post Corporation, The Canadian Addressing Guide, October 2002

Appendix C: Street Types and Street Directions *(cont'd)*

Street Type	Abbreviation	Language
Hill	HILL	E
Hollow	HOLLOW	E
Heights	HTS	E
Highway	HWY	E
Île	ÎLE	F
Impasse	IMP	E
Inlet	INLET	E
Island	ISLAND	E
Key	KEY	E
Knoll	KNOLL	E
Landing	LANDNG	E
Lane	LANE	E
Line	LINE	E
Link	LINK	E
Lookout	LKOUT	E
Limits	LMTS	E
Loop	LOOP	E
Mall	MALL	E
Manor	MANOR	E
Maze	MAZE	E
Meadow	MEADOW	E
Mews	MEWS	E
Montée	MONTÉE	F
Moor	MOOR	E
Mount	MOUNT	E
Mountain	MTN	E
Orchard	ORCH	E
Parade	PARADE	E
Parc	PARC	F
Passage	PASS	E
Path	PATH	E
Pines	PINES	E
Park	PK	E
Parkway	PKY	E
Pathway	PTWAY	E
Place	PL	E
Place	PLACE	F
Plateau	PLAT	E
Plaza	PLAZA	E
Port	PORT	E
Point	PT	E
Pointe	POINTE	F

Street Type	Abbreviation	Language
Private	PVT	E
Promenade	PROM	E
Quai	QUAI	F
Quay	QUAY	E
Ramp	RAMP	E
Rang	RANG	F
Road	RD	E
Rond-point	RDPT	F
Range	RG	E
Ridge	RIDGE	E
Rise	RISE	E
Ruelle	RLE	F
Row	ROW	E
Route	RTE	E
Rue	RUE	F
Run	RUN	E
Sentier	SENT	E
Square	SQ	E
Street	ST	E
Subdivision	SUBDIV	E
Terrace	TERR	E
Thicket	THICK	E
Townline	TLINE	E
Towers	TOWERS	E
Trail	TRAIL	E
Turnabout	TRNABT	E
Terrasse	TSSE	F
Vale	VALE	E
Via	VIA	E
View	VIEW	E
Villas	VILLAS	E
Village	VILLGE	E
Vista	VISTA	E
Voie	VOIE	F
Walk	WALK	E
Way	WAY	E
Wharf	WHARF	E
Wood	WOOD	E
Wynd	WYND	E

Appendix C: Street Types and Street Directions *(cont'd)*

Street Directions

Street Directions used in the CanMap® suite of products correspond to the standard abbreviations used by Canada Post. The Language column distinguishes between street types in English (E) and street types in French (F).

Street Direction	Abbreviation	Language
East	E	E
Est	E	F
Nord	N	F
NordEst	NE	F
NordOuest	NO	F
North	N	E
NorthEast	NE	E
NorthWest	NW	E
Ouest	O	F
South	S	E
SouthEast	SE	E
SouthWest	SW	E
Sud	S	F
SudEst	SE	F
SudOuest	SO	F
West	W	E

Appendix D: Cartographic Road and Rail Classifications

Carto #	Carto Name	Description
1	Expressway	Expressways and 400 series highways, e.g. Highway 401, Don Valley Parkway
2	Primary Highway	Primary Highway, e.g. Highway 7, Highway 11
3	Secondary Highway	Secondary Highways
4	Major Road	Major road or Arterial road, e.g. Bayview Ave
5	Local Road	Subdivision road in a city or gravel road in a rural area
6	Trail	Trails
10	Main	Main Railway and Transit Lines (includes segments of rail that are shared with transit)
11	Sidetrack	Sidetrack of Main Railway Route
12	Abandoned	Abandoned sections of Main Railway Route
13	Transit	Transit lines that are not shared with Railway lines
20	Ferry Route	Approximate travel route of Ferry
21	Ferry Ramp	Ferry Ramp
22	Ice Road	Approximate travel route of Ice Road
23	Ice Ramp	Ice Ramp
24	Ferry Route/Ice Road	Approximate travel route of Ferry/Ice Road
25	Ferry/Ice Ramp	Ferry/Ice Ramp

Appendix E: Routing Hierarchy

Routing Hierarchy consists of six routes representing Canada's high priority road corridors. These corridors consist of interconnecting roads and highways that link capital cities, major provincial population centers and important border crossing points.

- Route 1 - links Canada's national/provincial capitals to cities with populations over 50 000
- Route 2 - links cities with populations between 20 000 and 50 000 and highways that service major border crossings
- Route 3 - links cities with populations between 10 000 and 20 000
- Route 4 - links cities with populations below 10 000
- Route 5 - consists of intercity routes currently present within 6 of the major urban centers (Toronto, Ottawa, Montreal, Vancouver, Victoria and Calgary)
- Route 6 - identifies all other segments within the CanMap file that have not already been identified as being a part of Routes 1 to 5.

Route 1 Cities

Name	Prov	CSD Name	Pop 1996
Montréal	QC	MONTRÉAL	1,016,376
Calgary	AB	CALGARY	768,082
Toronto	ON	TORONTO	653,734
Winnipeg	MB	WINNIPEG	618,477
Edmonton	AB	EDMONTON	616,306
Mississauga	ON	MISSISSAUGA	544,382
Vancouver	BC	VANCOUVER	514,008
Laval	QC	LAVAL	330,393
London	ON	LONDON	325,646
Ottawa	ON	OTTAWA	323,340
Hamilton	ON	HAMILTON	322,352
Surrey	BC	SURREY	304,477
Brampton	ON	BRAMPTON	268,251
Windsor	ON	WINDSOR	197,694
Saskatoon	SK	SASKATOON	193,647
Regina	SK	REGINA	180,400
Burnaby	BC	BURNABY	179,209
Kitchener	ON	KITCHENER	178,420
Québec	QC	QUÉBEC	167,264
Richmond	BC	RICHMOND	148,867
Burlington	ON	BURLINGTON	136,976
Oshawa	ON	OSHAWA	134,364
Vaughan	ON	VAUGHAN	132,549
St. Catharines	ON	ST. CATHARINES	130,926
Longueuil	QC	LONGUEUIL	127,977
Nepean	ON	NEPEAN	115,100
Sydney	NS	CAPE BRETON	114,733
Halifax	NS	HALIFAX	113,910
Thunder Bay	ON	THUNDER BAY	113,662
Abbotsford	BC	ABBOTSFORD	105,403

Appendix E: Routing Hierarchy *(cont'd)*

Name	Prov	CSD Name	Pop 1996
Gloucester	ON	GLOUCESTER	104,022
St. John's	NF	ST. JOHN'S	101,936
Coquitlam	BC	COQUITLAM	101,820
Cambridge	ON	CAMBRIDGE	101,429
Gatineau	QC	GATINEAU	100,702
Guelph	ON	GUELPH	95,821
Sudbury	ON	SUDBURY	92,059
Kelowna	BC	KELOWNA	89,442
Brantford	ON	BRANTFORD	84,764
Sault Ste. Marie	ON	SAULT STE. MARIE	80,054
Barrie	ON	BARRIE	79,191
Waterloo	ON	WATERLOO	77,949
Niagara Falls	ON	NIAGARA FALLS	76,917
Sherbrooke	QC	SHERBROOKE	76,786
Kamloops	BC	KAMLOOPS	76,394
Prince George	BC	PRINCE GEORGE	75,150
Victoria	BC	VICTORIA	73,504
Beauport	QC	BEAUPORT	72,920
Sarnia	ON	SARNIA	72,738
Saint John	NB	SAINT JOHN	72,494
Charlesbourg	QC	CHARLESBOURG	70,942
Nanaimo	BC	NANAIMO	70,130
Peterborough	ON	PETERBOROUGH	69,535
Dartmouth	NS	DARTMOUTH	65,629
Chicoutimi	QC	CHICOUTIMI	63,061
Lethbridge	AB	LETHBRIDGE	63,053
Hull	QC	HULL	62,339
Chilliwack	BC	CHILLIWACK	60,186
Red Deer	AB	RED DEER	60,075
Moncton	NB	MONCTON	59,313
Jonquière	QC	JONQUIÈRE	56,503
Kingston	ON	KINGSTON	55,947
North Bay	ON	NORTH BAY	54,332
Stoney Creek	ON	STONEY CREEK	54,318
Fredericton	NB	FREDERICTON	46,507
Charlottetown	PE	CHARLOTTETOWN	32,531
Whitehorse	YT	WHITEHORSE	19,157
Yellowknife	NT	YELLOWKNIFE	17,275

Appendix E: Routing Hierarchy *(cont'd)*

Route 2 Cities

Name	Prov	CSD Name	Pop 1996
New Westminster	BC	NEW WESTMINSTER	49,350
Trois-Rivières	QC	TROIS-RIVIÈRES	48,419
Welland	ON	WELLAND	48,411
Kanata	ON	KANATA	47,909
Timmins	ON	TIMMINS	47,499
Cornwall	ON	CORNWALL	47,403
St. Albert	AB	ST. ALBERT	46,888
Medicine Hat	AB	MEDICINE HAT	46,783
Port Coquitlam	BC	PORT COQUITLAM	46,682
Chatham	ON	CHATHAM	43,409
North Vancouver	BC	NORTH VANCOUVER	41,475
Brandon	MB	BRANDON	39,175
Belleville	ON	BELLEVILLE	37,083
Prince Albert	SK	PRINCE ALBERT	34,777
Moose Jaw	SK	MOOSE JAW	32,973
St. Thomas	ON	ST. THOMAS	32,275
Woodstock	ON	WOODSTOCK	32,086
Vernon	BC	VERNON	31,817
Grande Prairie	AB	GRANDE PRAIRIE	31,140
Penticton	BC	PENTICTON	30,987
Mission	BC	MISSION	30,519
Stratford	ON	STRATFORD	28,987
Orillia	ON	ORILLIA	27,846
Mount Pearl	NF	MOUNT PEARL	25,519
Nanticoke	ON	NANTICOKE	23,485
Langley	BC	LANGLEY	22,523
Corner Brook	NF	CORNER BROOK	21,893
Brockville	ON	BROCKVILLE	21,752
Owen Sound	ON	OWEN SOUND	21,390
Port Moody	BC	PORT MOODY	20,847

Appendix E: Routing Hierarchy *(cont'd)*

Route 3 Cities

Name	Prov	CSD Name	Pop 1996
Miramichi	NB	MIRAMICHI	19,241
Port Alberni	BC	PORT ALBERNI	18,468
Port Colborne	ON	PORT COLBORNE	18,451
Cranbrook	BC	CRANBROOK	18,131
Thorold	ON	THOROLD	17,883
Courtenay	BC	COURTENAY	17,335
Vanier	ON	VANIER	17,247
White Rock	BC	WHITE ROCK	17,210
Prince Rupert	BC	PRINCE RUPERT	16,714
Quinte West	ON	SIDNEY	16,172
Airdrie	AB	AIRDRIE	15,946
Yorkton	SK	YORKTON	15,154
Fort St. John	BC	FORT ST. JOHN	15,021
Swift Current	SK	SWIFT CURRENT	14,890
Summerside	PE	SUMMERSIDE	14,525
Thompson	MB	THOMPSON	14,385
Leduc	AB	LEDUC	14,305
Spruce Grove	AB	SPRUCE GROVE	14,271
Pembroke	ON	PEMBROKE	14,177
North Battleford	SK	NORTH BATTLEFORD	14,051
Colwood	BC	COLWOOD	13,848
Bathurst	NB	BATHURST	13,815
Camrose	AB	CAMROSE	13,728
Elliot Lake	ON	ELLIOT LAKE	13,588
Powell River	BC	POWELL RIVER	13,131
Portage la Prairie	MB	PORTAGE LA PRAIRIE	13,077
Terrace	BC	TERRACE	12,779
Fort Saskatchewan	AB	FORT SASKATCHEWAN	12,408
Lloydminster	AB	LLOYDMINSTER (PART)	11,317
Dawson Creek	BC	DAWSON CREEK	11,125
Edmundston	NB	EDMUNDSTON	11,033
Wetaskiwin	AB	WETASKIWIN	10,959
Estevan	SK	ESTEVAN	10,752
Williams Lake	BC	WILLIAMS LAKE	10,472
Kenora	ON	KENORA	10,063

Appendix E: Routing Hierarchy *(cont'd)*

Route 4 Cities

Name	Prov	CSD Name	Pop 1996
Weyburn	SK	WEYBURN	9,723
Nelson	BC	NELSON	9,585
Parksville	BC	PARKSVILLE	9,472
Quesnel	BC	QUESNEL	8,468
Campbellton	NB	CAMPBELLTON	8,404
Revelstoke	BC	REVELSTOKE	8,047
Trail	BC	TRAIL	7,696
Lloydminster	SK	LLOYDMINSTER (PART)	7,636
Merritt	BC	MERRITT	7,631
Castlegar	BC	CASTLEGAR	7,027
Kimberley	BC	KIMBERLEY	6,738
Dryden	ON	DRYDEN	6,711
Drumheller	AB	DRUMHELLER	6,587
Flin Flon	MB	FLIN FLON	6,861
Brant	ON	BRANTFORD	6,487
Melfort	SK	MELFORT	5,759
Carbonear	NF	CARBONEAR	5,168
Fernie	BC	FERNIE	4,877
Melville	SK	MELVILLE	4,646
Duncan	BC	DUNCAN	4,583
Cold Lake	AB	GRAND CENTRE	4,176
Grand Forks	BC	GRAND FORKS	3,994
Armstrong	BC	ARMSTRONG	3,906
Rossland	BC	ROSSLAND	3,802
Enderby	BC	ENDERBY	2,754
Greenwood	BC	GREENWOOD	784

Appendix F: Transportation Route Restrictions

PROV	CSD_NAME	CMA Boundary
AB	AIRDRIE	CALGARY
AB	BEISEKER	CALGARY
AB	CALGARY	CALGARY
AB	CHESTERMERE	CALGARY
AB	COCHRANE	CALGARY
AB	CROSSFIELD	CALGARY
AB	IRRICANA	CALGARY
AB	ROCKY VIEW NO. 44	CALGARY
AB	SARCEE 145	CALGARY
AB	ALEXANDER 134	EDMONTON
AB	BEAUMONT	EDMONTON
AB	BETULA BEACH	EDMONTON
AB	BON ACCORD	EDMONTON
AB	BRUDERHEIM	EDMONTON
AB	CALMAR	EDMONTON
AB	DEVON	EDMONTON
AB	EDMONTON	EDMONTON
AB	EDMONTON BEACH	EDMONTON
AB	ENTWISTLE	EDMONTON
AB	FORT SASKATCHEWAN	EDMONTON
AB	GIBBONS	EDMONTON
AB	GOLDEN DAYS	EDMONTON
AB	ITASKA BEACH	EDMONTON
AB	KAPASIWIN	EDMONTON
AB	LAKEVIEW	EDMONTON
AB	LEDUC	EDMONTON
AB	LEDUC COUNTY NO. 25	EDMONTON
AB	LEGAL	EDMONTON
AB	MORINVILLE	EDMONTON
AB	NEW SAREPTA	EDMONTON
AB	PARKLAND COUNTY	EDMONTON
AB	POINT ALISON	EDMONTON
AB	REDWATER	EDMONTON
AB	SEBA BEACH	EDMONTON
AB	SPRUCE GROVE	EDMONTON
AB	ST. ALBERT	EDMONTON
AB	STONY PLAIN	EDMONTON
AB	STONY PLAIN 135	EDMONTON
AB	STRATHCONA COUNTY	EDMONTON
AB	STURGEON NO. 90	EDMONTON
AB	SUNDANCE BEACH	EDMONTON

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
AB	THORSBY	EDMONTON
AB	WABAMUN	EDMONTON
AB	WABAMUN 133A	EDMONTON
AB	WARBURG	EDMONTON
BC	ANMORE	VANCOUVER
BC	BARNSTON ISLAND 3	VANCOUVER
BC	BELCARRA	VANCOUVER
BC	BURNABY	VANCOUVER
BC	BURRARD INLET 3	VANCOUVER
BC	CAPILANO 5	VANCOUVER
BC	COQUITLAM	VANCOUVER
BC	COQUITLAM 1	VANCOUVER
BC	COQUITLAM 2	VANCOUVER
BC	DELTA	VANCOUVER
BC	GREATER VANCOUVER, SUBD. A	VANCOUVER
BC	KATZIE 1	VANCOUVER
BC	KATZIE 2	VANCOUVER
BC	LANGLEY	VANCOUVER
BC	LANGLEY	VANCOUVER
BC	LANGLEY 5	VANCOUVER
BC	LIONS BAY	VANCOUVER
BC	MAPLE RIDGE	VANCOUVER
BC	MATSQUI 4	VANCOUVER
BC	MCMILLAN ISLAND 6	VANCOUVER
BC	MISSION 1	VANCOUVER
BC	MUSQUEAM 2	VANCOUVER
BC	MUSQUEAM 4	VANCOUVER
BC	NEW WESTMINSTER	VANCOUVER
BC	NORTH VANCOUVER	VANCOUVER
BC	NORTH VANCOUVER	VANCOUVER
BC	PITT MEADOWS	VANCOUVER
BC	PORT COQUITLAM	VANCOUVER
BC	PORT MOODY	VANCOUVER
BC	RICHMOND	VANCOUVER
BC	SEMIAHMOO	VANCOUVER
BC	SEYMOUR CREEK 2	VANCOUVER
BC	SURREY	VANCOUVER
BC	TSAWWASSEN	VANCOUVER
BC	UNIVERSITY ENDOWMENT AREA	VANCOUVER
BC	VANCOUVER	VANCOUVER
BC	WEST VANCOUVER	VANCOUVER
BC	WHITE ROCK	VANCOUVER
BC	WHONNOCK 1	VANCOUVER

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
BC	BECHER BAY 1	VICTORIA
BC	CAPITAL, SUBD. B	VICTORIA
BC	CAPITAL, SUBD. C	VICTORIA
BC	CENTRAL SAANICH	VICTORIA
BC	COLE BAY 3	VICTORIA
BC	COLWOOD	VICTORIA
BC	EAST SAANICH 2	VICTORIA
BC	ESQUIMALT	VICTORIA
BC	ESQUIMALT	VICTORIA
BC	HIGHLANDS	VICTORIA
BC	LANGFORD	VICTORIA
BC	METCHOSIN	VICTORIA
BC	NEW SONGHEES 1A	VICTORIA
BC	NORTH SAANICH	VICTORIA
BC	OAK BAY	VICTORIA
BC	SAANICH	VICTORIA
BC	SIDNEY	VICTORIA
BC	SOOKE 1	VICTORIA
BC	SOOKE 2	VICTORIA
BC	SOUTH SAANICH 1	VICTORIA
BC	UNION BAY 4	VICTORIA
BC	VICTORIA	VICTORIA
BC	VIEW ROYAL	VICTORIA
MB	BROKENHEAD 4	WINNIPEG
MB	EAST ST. PAUL	WINNIPEG
MB	HEADINGLEY	WINNIPEG
MB	RITCHOT	WINNIPEG
MB	ROSSER	WINNIPEG
MB	SPRINGFIELD	WINNIPEG
MB	ST. CLEMENTS	WINNIPEG
MB	ST. FRANCOIS XAVIER	WINNIPEG
MB	TACHE	WINNIPEG
MB	WEST ST. PAUL	WINNIPEG
MB	WINNIPEG	WINNIPEG
NB	BRIGHT	FREDERICTON
NB	DEVON 30	FREDERICTON
NB	DOUGLAS	FREDERICTON
NB	FREDERICTON	FREDERICTON
NB	KINGSCLEAR	FREDERICTON
NB	KINGSCLEAR 6	FREDERICTON
NB	LINCOLN	FREDERICTON
NB	MAUGERVILLE	FREDERICTON

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
NB	NEW MARYLAND	FREDERICTON
NB	NEW MARYLAND	FREDERICTON
NB	SAINT MARYS	FREDERICTON
NB	SAINT MARY'S 24	FREDERICTON
NF	BAULINE	ST. JOHN'S
NF	BAY BULLS	ST. JOHN'S
NF	CONCEPTION BAY SOUTH	ST. JOHN'S
NF	FLATROCK	ST. JOHN'S
NF	LOGY BAY-MIDDLE COVE-OUTER COVE	ST. JOHN'S
NF	MOUNT PEARL	ST. JOHN'S
NF	PARADISE	ST. JOHN'S
NF	PETTY HARBOUR-MADDOX COVE	ST. JOHN'S
NF	PORTUGAL COVE-ST. PHILIP'S	ST. JOHN'S
NF	POUCH COVE	ST. JOHN'S
NF	ST. JOHN'S	ST. JOHN'S
NF	TORBAY	ST. JOHN'S
NF	WITLESS BAY	ST. JOHN'S
NS	BEDFORD	HALIFAX
NS	COLE HARBOUR 30	HALIFAX
NS	DARTMOUTH	HALIFAX
NS	HALIFAX	HALIFAX
NS	HALIFAX, SUBD. A	HALIFAX
NS	HALIFAX, SUBD. B	HALIFAX
NS	HALIFAX, SUBD. C	HALIFAX
NS	HALIFAX, SUBD. D	HALIFAX
NS	HALIFAX, SUBD. E	HALIFAX
NS	SHUBENACADIE 13	HALIFAX
NT	YELLOWKNIFE	YELLOWKNIFE
NU	IQALUIT	IQALUIT (CSD)
ON	ANCASTER	HAMILTON
ON	BURLINGTON	HAMILTON
ON	DUNDAS	HAMILTON
ON	FLAMBOROUGH	HAMILTON
ON	GLANBROOK	HAMILTON
ON	GRIMSBY	HAMILTON
ON	HAMILTON	HAMILTON
ON	STONEY CREEK	HAMILTON
ON	CAMBRIDGE	OTTAWA
ON	CASSELMAN	OTTAWA
ON	CLARENCE	OTTAWA
ON	CUMBERLAND	OTTAWA
ON	GLOUCESTER	OTTAWA
ON	GOULBOURN	OTTAWA

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
ON	KANATA	OTTAWA
ON	NEPEAN	OTTAWA
ON	OSGOODE	OTTAWA
ON	OTTAWA	OTTAWA
ON	RIDEAU	OTTAWA
ON	ROCKCLIFFE PARK	OTTAWA
ON	ROCKLAND	OTTAWA
ON	RUSSELL	OTTAWA
ON	SOUTH GOWER	OTTAWA
ON	VANIER	OTTAWA
ON	WEST CARLETON	OTTAWA
ON	AJAX	TORONTO
ON	AURORA	TORONTO
ON	BRADFORD WEST GWILLIMBURY	TORONTO
ON	BRAMPTON	TORONTO
ON	CALEDON	TORONTO
ON	EAST GWILLIMBURY	TORONTO
ON	EAST YORK	TORONTO
ON	ETOBICOKE	TORONTO
ON	GEORGINA	TORONTO
ON	GEORGINA ISLAND 33	TORONTO
ON	HALTON HILLS	TORONTO
ON	KING	TORONTO
ON	MARKHAM	TORONTO
ON	MILTON	TORONTO
ON	MISSISSAUGA	TORONTO
ON	MONO	TORONTO
ON	NEW TECUMSETH	TORONTO
ON	NEWMARKET	TORONTO
ON	NORTH YORK	TORONTO
ON	OAKVILLE	TORONTO
ON	ORANGEVILLE	TORONTO
ON	PICKERING	TORONTO
ON	RICHMOND HILL	TORONTO
ON	SCARBOROUGH	TORONTO
ON	TORONTO	TORONTO
ON	UXBRIDGE	TORONTO
ON	VAUGHAN	TORONTO
ON	WHITCHURCH-STOUFFVILLE	TORONTO
ON	YORK	TORONTO
PE	BRACKLEY	CHARLOTTETOWN
PE	CHARLOTTETOWN	CHARLOTTETOWN

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
PE	CLYDE RIVER	CHARLOTTETOWN
PE	CORNWALL	CHARLOTTETOWN
PE	LOT 31	CHARLOTTETOWN
PE	LOT 33	CHARLOTTETOWN
PE	LOT 34	CHARLOTTETOWN
PE	LOT 35	CHARLOTTETOWN
PE	LOT 36	CHARLOTTETOWN
PE	LOT 48	CHARLOTTETOWN
PE	LOT 49	CHARLOTTETOWN
PE	LOT 65	CHARLOTTETOWN
PE	MEADOWBANK	CHARLOTTETOWN
PE	MILTONVALE PARK	CHARLOTTETOWN
PE	ROCKY POINT 3	CHARLOTTETOWN
PE	SCOTCHFORT 4	CHARLOTTETOWN
PE	STRATFORD	CHARLOTTETOWN
PE	UNION ROAD	CHARLOTTETOWN
PE	WARREN GROVE	CHARLOTTETOWN
PE	WINSLOE SOUTH	CHARLOTTETOWN
QC	AYLMER	HULL
QC	BUCKINGHAM	HULL
QC	CANTLEY	HULL
QC	CHELSEA	HULL
QC	GATINEAU	HULL
QC	HULL	HULL
QC	LA PECHE	HULL
QC	MASSON-ANGERS	HULL
QC	PONTIAC	HULL
QC	VAL-DES-MONTS	HULL
QC	ANJOU	MONTREAL
QC	BAIE-D'URFE	MONTREAL
QC	BEACONSFIELD	MONTREAL
QC	BEAUHARNOIS	MONTREAL
QC	BELLEFEUILLE	MONTREAL
QC	BELOEIL	MONTREAL
QC	BLAINVILLE	MONTREAL
QC	BOISBRIAND	MONTREAL
QC	BOIS-DES-FILION	MONTREAL
QC	BOUCHERVILLE	MONTREAL
QC	BROSSARD	MONTREAL
QC	CANDIAC	MONTREAL
QC	CARIGNAN	MONTREAL
QC	CHAMBLY	MONTREAL
QC	CHARLEMAGNE	MONTREAL

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
QC	CHATEAUGUAY	MONTREAL
QC	COTE-SAINT-LUC	MONTREAL
QC	DELSON	MONTREAL
QC	DEUX-MONTAGNES	MONTREAL
QC	DOLLARD-DES-ORMEAUX	MONTREAL
QC	DORVAL	MONTREAL
QC	GORE	MONTREAL
QC	GREENFIELD PARK	MONTREAL
QC	HAMPSTEAD	MONTREAL
QC	HUDSON	MONTREAL
QC	KAHNAWAKE 14	MONTREAL
QC	KANESATAKE	MONTREAL
QC	KIRKLAND	MONTREAL
QC	LA PLAINE	MONTREAL
QC	LA PRAIRIE	MONTREAL
QC	LACHENAIE	MONTREAL
QC	LACHINE	MONTREAL
QC	LAFONTAINE	MONTREAL
QC	LASALLE	MONTREAL
QC	L'ASSOMPTION	MONTREAL
QC	LAVAL	MONTREAL
QC	LAVALTRIE	MONTREAL
QC	LE GARDEUR	MONTREAL
QC	LEMOYNE	MONTREAL
QC	LERY	MONTREAL
QC	LES CEDRES	MONTREAL
QC	L'ILE-BIZARD	MONTREAL
QC	L'ILE-CADIEUX	MONTREAL
QC	L'ILE-DORVAL	MONTREAL
QC	L'ILE-PERROT	MONTREAL
QC	LONGUEUIL	MONTREAL
QC	LORRAINE	MONTREAL
QC	MAPLE GROVE	MONTREAL
QC	MASCOUCHE	MONTREAL
QC	MCMASTERVILLE	MONTREAL
QC	MELOCHEVILLE	MONTREAL
QC	MERCIER	MONTREAL
QC	MIRABEL	MONTREAL
QC	MONTREAL	MONTREAL
QC	MONTREAL-EST	MONTREAL
QC	MONTREAL-NORD	MONTREAL
QC	MONTREAL-OUEST	MONTREAL

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
QC	MONT-ROYAL	MONTREAL
QC	MONT-SAINT-HILAIRE	MONTREAL
QC	NOTRE-DAME-DE-BON-SECOURS	MONTREAL
QC	NOTRE-DAME-DE-L'ILE-PERROT	MONTREAL
QC	OKA	MONTREAL
QC	OKA	MONTREAL
QC	OTTERBURN PARK	MONTREAL
QC	OUTREMONT	MONTREAL
QC	PIERREFONDS	MONTREAL
QC	PINCOURT	MONTREAL
QC	POINTE-CALUMET	MONTREAL
QC	POINTE-CLAIRE	MONTREAL
QC	POINTE-DES-CASCADES	MONTREAL
QC	REPENTIGNY	MONTREAL
QC	RICHELIEU	MONTREAL
QC	ROSEMERE	MONTREAL
QC	ROXBORO	MONTREAL
QC	SAINT-AMABLE	MONTREAL
QC	SAINT-ANTOINE	MONTREAL
QC	SAINT-ANTOINE-DE-LAVALTRIE	MONTREAL
QC	SAINT-BASILE-LE-GRAND	MONTREAL
QC	SAINT-BRUNO-DE-MONTARVILLE	MONTREAL
QC	SAINT-COLOMBAN	MONTREAL
QC	SAINT-CONSTANT	MONTREAL
QC	SAINTE-ANNE-DE-BELLEVUE	MONTREAL
QC	SAINTE-ANNE-DES-PLAINES	MONTREAL
QC	SAINTE-CATHERINE	MONTREAL
QC	SAINTE-GENEVIEVE	MONTREAL
QC	SAINTE-JULIE	MONTREAL
QC	SAINTE-MARTHE-SUR-LE-LAC	MONTREAL
QC	SAINTE-THERESE	MONTREAL
QC	SAINT-EUSTACHE	MONTREAL
QC	SAINT-GERARD-MAJELLA	MONTREAL
QC	SAINT-HUBERT	MONTREAL
QC	SAINT-ISIDORE	MONTREAL
QC	SAINT-JEROME	MONTREAL
QC	SAINT-JOSEPH-DU-LAC	MONTREAL
QC	SAINT-LAMBERT	MONTREAL
QC	SAINT-LAURENT	MONTREAL
QC	SAINT-LAZARE	MONTREAL

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
QC	SAINT-LEONARD	MONTREAL
QC	SAINT-MATHIAS-SUR-RICHELIEU	MONTREAL
QC	SAINT-MATHIEU	MONTREAL
QC	SAINT-MATHIEU-DE-BELOEIL	MONTREAL
QC	SAINT-PHILIPPE	MONTREAL
QC	SAINT-PIERRE	MONTREAL
QC	SAINT-PLACIDE	MONTREAL
QC	SAINT-SULPICE	MONTREAL
QC	SENNEVILLE	MONTREAL
QC	TERRASSE-VAUDREUIL	MONTREAL
QC	TERREBONNE	MONTREAL
QC	VARENNES	MONTREAL
QC	VAUDREUIL-DORION	MONTREAL
QC	VAUDREUIL-SUR-LE-LAC	MONTREAL
QC	VERDUN	MONTREAL
QC	WESTMOUNT	MONTREAL
QC	BEAUPORT	QUEBEC
QC	BERNIERES-SAINT-NICOLAS	QUEBEC
QC	BOISCHATEL	QUEBEC
QC	CAP-ROUGE	QUEBEC
QC	CHARLESBOURG	QUEBEC
QC	CHARNY	QUEBEC
QC	CHÂTEAU-RICHER	QUEBEC
QC	FOSSAMBAULT-SUR-LE-LAC	QUEBEC
QC	LAC-BEAUPORT	QUEBEC
QC	LAC-DELAGE	QUEBEC
QC	LAC-SAINT-CHARLES	QUEBEC
QC	LAC-SAINT-JOSEPH	QUEBEC
QC	L'ANCIENNE-LORETTE	QUEBEC
QC	L'ANGE-GARDIEN	QUEBEC
QC	LEVIS	QUEBEC
QC	LORETTEVILLE	QUEBEC
QC	NOTRE-DAME-DES-ANGES	QUEBEC
QC	PINTENDRE	QUEBEC
QC	QUEBEC CITY	QUEBEC
QC	SAINT-AUGUSTIN-DE-DESMAURES	QUEBEC
QC	SAINTE-BRIGITTE-DE-LAVAL	QUEBEC
QC	SAINTE-CATHERINE-DE-LA-JACQUES-CARTIER	QUEBEC
QC	SAINTE-FAMILLE	QUEBEC
QC	SAINTE-FOY	QUEBEC
QC	SAINTE-HELENE-DE-BREAKEYVILLE	QUEBEC

Appendix F: Transportation Route Restrictions *(cont'd)*

PROV	CSD_NAME	CMA Boundary
QC	SAINT-EMILE	QUEBEC
QC	SAINTE-PETRONILLE	QUEBEC
QC	SAINT-ETIENNE-DE-BEAUMONT	QUEBEC
QC	SAINT-ETIENNE-DE-LAUZON	QUEBEC
QC	SAINT-FRANCOIS	QUEBEC
QC	SAINT-GABRIEL-DE-VALCARTIER	QUEBEC
QC	SAINT-JEAN	QUEBEC
QC	SAINT-JEAN-CHRYSOSTOME	QUEBEC
QC	SAINT-JOSEPH-DE-LA-POINTE-DE-LEVY	QUEBEC
QC	SAINT-LAMBERT-DE-LAUZON	QUEBEC
QC	SAINT-LAURENT	QUEBEC
QC	SAINT-PIERRE	QUEBEC
QC	SAINT-REDEMPTEUR	QUEBEC
QC	SAINT-ROMUALD	QUEBEC
QC	SHANNON	QUEBEC
QC	SILLERY	QUEBEC
QC	STONEHAM-ET-TEWKESBURY	QUEBEC
QC	VAL-BELAIR	QUEBEC
QC	VANIER	QUEBEC
QC	WENDAKE	QUEBEC
SK	BALGONIE	REGINA
SK	BELLE PLAINE	REGINA
SK	BUENA VISTA	REGINA
SK	DISLEY	REGINA
SK	EDENWOLD	REGINA
SK	EDENWOLD NO. 158	REGINA
SK	GRAND COULEE	REGINA
SK	LUMSDEN	REGINA
SK	LUMSDEN BEACH	REGINA
SK	LUMSDEN NO. 189	REGINA
SK	PENSE	REGINA
SK	PENSE NO. 160	REGINA
SK	PILOT BUTTE	REGINA
SK	REGINA	REGINA
SK	REGINA BEACH	REGINA
SK	SHERWOOD NO. 159	REGINA
SK	WHITE CITY	REGINA
YT	IBEX VALLEY	WHITEHORSE
YT	LAKE LABERGE 1	WHITEHORSE
YT	MT. LORNE	WHITEHORSE
YT	WHITEHORSE	WHITEHORSE
YT	WHITEHORSE, UNORGANIZED	WHITEHORSE

Appendix G: Geographical Placement of Data

Precision Codes

Code indicating the positional accuracy or precision of the positioned or geocoded feature.

Prec_Code	Description
1	Centroid of 1:50 000 NTDB feature or placed via Orthorectified photo
2	Block-face representative point from CanMap streets – High precision
3	Block-face representative point from CanMap streets – Lower precision
4	Postal Code - Block-face representative point
5	Postal Code - EA Centroid / FSA Centroid
6	Municipal Centroid
7	Canadian Geographical Names Database (CGNDB)[36]

[36] May have been enhanced by removing points from water bodies

Appendix H: Canadian Urban Areas and Abbreviations

Canadian urban areas are based upon DMTI's topographic coverage areas. The following table is a partial list of urban areas and their abbreviations. For a complete listing of Canadian urban areas refer to the CANtop layer located in the Canada Directory or for information regarding other areas please contact DMTI Spatial.

Province	Topographic Coverage Area	Abbreviation
AB	Calgary	CLGRY
AB	Edmonton	EDMNT
BC	Vancouver	VNCVR
BC	Victoria	VCTRA
MB	Winnipeg	WINPG
NB	Fredericton	FRDTN
NB	Saint John	STJON
NL	Labrador City	LBDRC
NL	St. John's	STJHN
NS	Halifax	HALFX
NT	Yellowknife	YLKNF
NU	Iqaluit	IQALT
ON	Greater Toronto Area	GTA
ON	Hamilton Niagara	HAMNG
ON	Ottawa	OTAWA
PE	Charlottetown	CHLTN
QC	Hull	HULL
QC	Montreal	MNTRL
QC	Quebec City	QBCTY
SK	Regina	RGNA
YT	Whitehorse	WTHRS

Appendix I: Exceptions to Official Time in Canada[37]

In some parts of Canada, observed time practice differs from official time. The following is a list of regions in Canada and the time practices that they observe.

British Columbia

- Boundary: British Columbia, with exceptions
  - Pacific Standard Time (PST): UTC - 8h
  - Pacific Daylight Time (PDT): UTC - 7h
  - PDT: from 2:00 PST on the first Sunday of April to 2:00 PDT on the last Sunday of October, the period of DST must be gazetted each year.
- British Columbia Exceptions - Municipalities using Mountain Standard and Mountain Daylight Time:
  - Parts of Central Kootenay
  - Parts of Columbia_Shuswap
  - Parts of East Kootenay including all of Cranbrook
  - All of Kootenay-Boundary
  - All of Peace River

Nunavut Territory

- Boundary: Nunavut east of 85° W longitude; except Southampton Island and the “islands near Southampton Island”.
  - Eastern Daylight Time (EDT): UTC - 4h
  - EDT: from 2:00 EST on the first Sunday of April to 2:00 EDT on the last Sunday of October
- Boundary: Nunavut’s Southampton Island and the “islands near Southampton Island”
  - Eastern Standard Time (EST): UTC - 5h
- Boundary: Nunavut west of 85° W longitude and east of 102° W longitude; except Southampton Island ,“the islands near Southampton Island”, and the“Kitikmeot Region”
  - Central Standard Time (CST): UTC - 6h
  - Central Daylight Time (CDT): UTC - 5h
  - CDT: from 2:00 CST on the first Sunday of April to 2:00 CDT on the last Sunday of October
- Boundary: Nunavut west of 102° W longitude; (and all of the “Kitikmeot Region”)
  - Mountain Standard Time (MST): UTC - 6h
  - Mountain Daylight Time (MDT): UTC - 5h
  - MDT: from 2:00 MST on the first Sunday of April to 2:00 MDT on the last Sunday of October

Ontario

- Boundary: Ontario east of 90° W longitude
  - Eastern Standard Time (EST): UTC - 5h
  - Eastern Daylight Time (EDT): UTC - 4h
  - EDT: from 2:00 EST on the first Sunday of April to 2:00 EDT on the last Sunday of October
- Boundary: Ontario west of 90° W longitude
  - Central Standard Time (CST): UTC - 6h
  - Central Daylight Time (EDT): UTC - 5h
  - CDT: from 2:00 CST on the first Sunday of April to 2:00 CDT on the last Sunday of October

[37] Source: National Research Council (NRC), April 2001

Quebec

- Boundary: Quebec east of 63° W longitude
    - Atlantic Standard Time (AST): Coordinated Universal Time (“UTC”) - 4h
    - In effect year-round
- Boundary: Quebec west of 63° W longitude
    - Eastern Standard Time (EST): UTC - 5h
    - Eastern Daylight Time (EDT): UTC - 4h
    - EDT: from 2:00 EST on the first Sunday of April to 2:00 EDT on the last Sunday of October

Saskatchewan

- Boundary: the Battle River district (around Lloydminster, in 1983 the Payton time option area was created, it uses CST year-round)
    - Central Standard Time (CST): UTC - 6h
    - CST: from 2:00 MST on the first Sunday of April to 2:00 CST on the last Sunday of October
- Boundary: Saskatchewan side of Lloydminster
    - Mountain Standard Time (MST): UTC - 7h
    - Mountain Daylight Time (MDT): UTC - 6h
    - MDT: from 2:00 MST on the first Sunday of April to 2:00 MDT on the last Sunday of October

Yukon Territory

- Pacific* Standard Time (PST): UTC - 8h
- Pacific* Daylight Time (PDT): UTC - 7h
- PDT: from 2:00 PST on the first Sunday of April to 2:00 PDT on the last Sunday of October

* Yukon regulations refer to this as “Yukon” rather than Pacific time. Federal legislation (the Interpretation Act) still specifies Yukon time as one hour west of Pacific time. Using “Pacific” avoids this legislative ambiguity.

Appendix J: Unshorelined vs. Shorelined Boundaries

National Water Layer

DMTI Spatial's standard boundaries are referred to as unshorelined boundaries. Unshorelined boundaries suggest that the boundary does not reflect physical shorelines.

Not recommended: "Unshorelined" boundaries with the national water (CANwat) layer beneath the boundary layer.

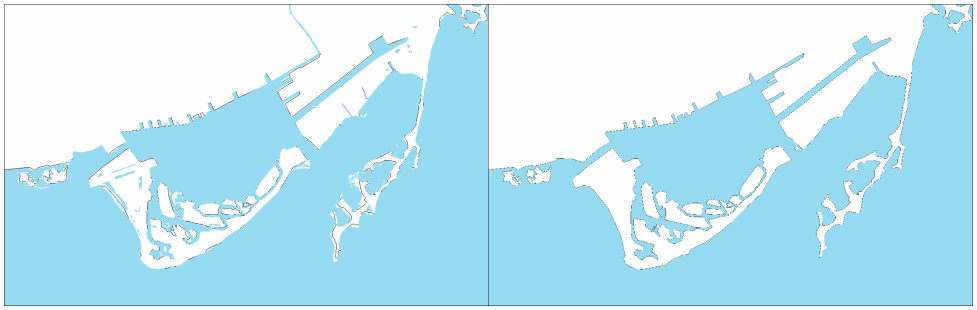
Recommended: "Unshorelined" boundaries with the national water (CANwat) layer on top of the boundary layer.

Shorelined boundaries are available from DMTI Spatial as a custom order. These boundaries are created using a subset of the CANwat layer, which is used to clip the overlap between the unshorelined boundaries.

Topographic Coverage Areas

With the purchase of CanMap Streetfiles and CanMap RouteLogistics DMTI Spatial provides a detailed water layer (*AREA*hy). Detailed water is only available in topographic coverage areas only.

It is not recommended that you view any shorelined boundaries with the detailed water layer (*AREA*hy), as the two layers will not align with each other.



Detailed water layer (*AREA*hy) and shorelined census boundaries

National water layer (*CAN*wat) and shorelined census boundaries

Please contact DMTI Spatial if you require a detailed nationwide water product or shorelined boundaries

Appendix k: Joining the rte (rds) Layer and rds_lut Table

To view the *AREA*rds data linked to the *AREA*rds_lut data the user must complete a manual join.

MapInfo

- Open both the *AREA*rds data file and the *AREA*rds_lut data file in MapInfo.
- Select 'Query'> 'SQL Select…'
- Complete the following query in the Query Menu *(See Figure 1)*
- Select * from *AREArds*, *AREArds*_lut where *AREArds*.UNIQUEID = *AREArds*_lut.RDS_ID
- 'Verify' the SQL query and if valid, press 'OK'.

Once the query result has been obtained you can then view the joined tables e.g. 'Joined_Results' via the Info Tool in the Map Window or through the 'Joined_Results' Table Browser.

To create a permanent join simply save the joined tables as a new MapInfo Table.

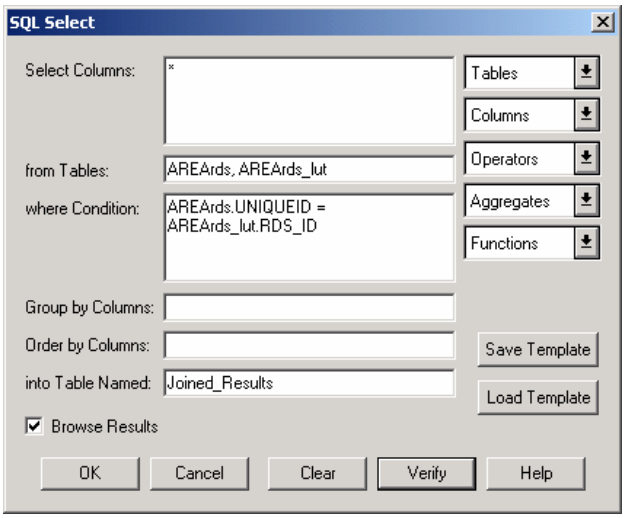


Figure 1: Joining MapInfo Tables

ArcView

- With the project file open, click on the Window menu and select the project (AREArds.apr) to display the project window.
- With the project window now displayed select the 'Tables' icon. Click on the 'Add' button, locate and open the AREArds_lut data table you wish to join.
- With the AREArds_lut table displayed click on the field (RDS_ID) that will be used to join the AREArds_lut table to the AREArds data table. Now return to the View with the AREArds file.
- Click on the AREArds theme in the legend to make it active.
- Click on the 'Open Theme Table' button to display the AREArds attribute table (or choose Theme from the Table menu).
- Click on the field that will be used to join the AREArds data table (UNIQUEID).
- Finally, click on the Join button (or choose Join from the Table menu)

When you scroll along the *AREArds* attribute table you will notice the *AREArds*_lut data has been joined. Additional data tables can be joined, so that many table attributes can be shown at one time. To undo the joins between the data tables click on the *AREArds* attribute table making it active and from the 'Table' menu select 'Remove All Joins'.

Appendix k: Joining the rte (rds) Layer and rds_lut Table *(cont'd)*

ArcGIS

- Open the appropriate project file (AREArds.mxd).
- Select the 'Add Data' button to open the corresponding attribute data file (AREArds_lut.dbf) you wish to join.
- Select the AREArds theme, right click and select 'Joins and Relates' selecting 'Join…' from the sub-menu of choices.
- Complete the 'Join Data' GUI as shown below using the UNIQUEID and RDS_ID fields as the common field between the tables. Once complete hit 'OK'.
- Once the join is complete select the AREArds theme, right click and select 'Open Attribute Table'. Once open, you can now scroll through the results of the join.
- Additional data tables can be joined, so that many table attributes can be shown at one time. To undo the joins between the data tables select the AREArds attribute table, right click and select 'Joins and Relates' selecting 'Remove Join(s)' from the sub-menu of choices. Select the table you wish to remove the join from the list provided (i.e. AREArds_lut.dbf).

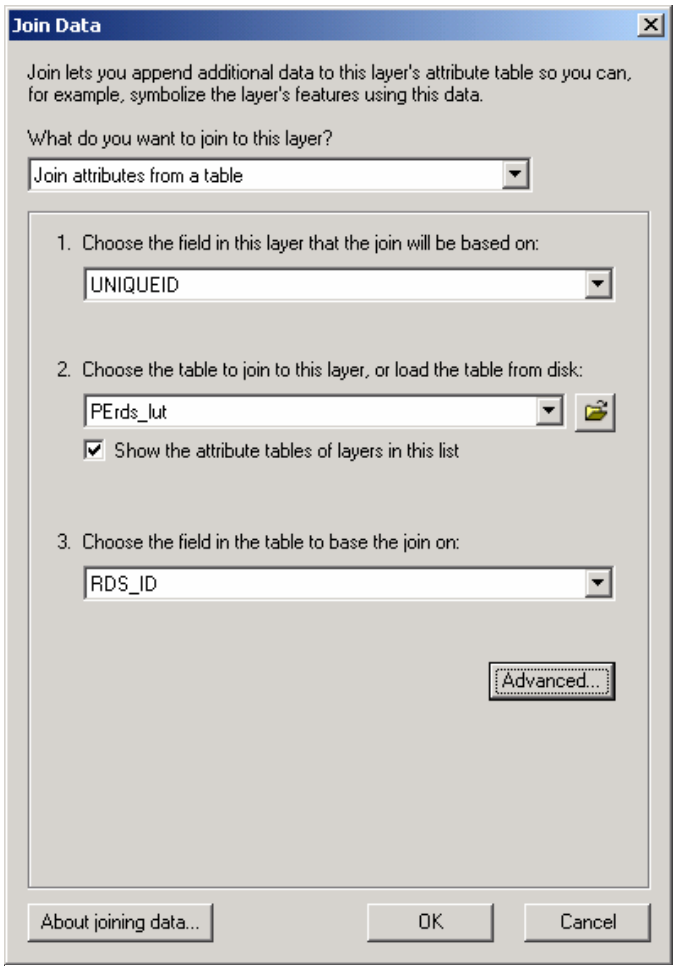


Figure 2: Joining Layers in ArcGIS.

Appendix L: RouteView Pro

RouteView Pro is an extension to MapInfo Professional providing a user with routing and catchment area functionality.

How to use the data in RouteView Pro

1. Open the RouteView Pro extension. In MapInfo Professional, under the File pulldown menu, select 'Run MapBasic Program' and run "c:\Program Files\Dataview\RV Pro 1.2\rvpro.mbx"
2. Under the RouteView Pro pulldown menu, select 'Configuration', then 'Open Road Network'.
3. The Road Network file to open is **\RVP\Nad83\CanMapRL\Geography\ _rvp.gph** and the Road Table is **\RVP\Nad83\CanMapRL\Geography\ _rvp.tab**
4. Start using RouteView Pro.

File Structure: (_rvp.tab)

Field Name	Field Type	Field Size	Description
ID	Decimal	9,0	Unique identifier for RouteView Pro
NAME	Character	69	Street Name
TYPE	Character	10	Road classification
YSKA	Integer	-	Turn restriction code used by RouteView Pro
ONE_WAY	Character	1	F - if road is one-way in direction of start to end (direction of digitization) R - if road is one-way in direction of end to start (reverse direction of digitization) *Left blank* – if road is 2 way

Notes:

- All files found within the **\RVP\Nad83\CanMapRL*AREA*** directory are needed by RouteView Pro. DMTI does not provide RouteView Pro software or tools—please contact software vendor.
- To view all of CanMap® RouteLogistics in MapInfo Professional, please use the data within the **\MapInfo\Nad83\CanMapRL*AREA*** directory.

Appendix M: ArcView 3.2 Route to Network Analyst[38]

DMTI Spatial is pleased to provide ArcView 3.2 users a tool that allows users to convert CanMap® RouteLogistics shape files to a Network Analyst (ArcView V3.2) routing file. The ArcView 3.2 Route to Network Analyst (RteNA) tool was designed to convert DMTI Spatial route (rte) files and turn restrictions table (trn) files into ArcView Network Analyst compatible routing files. The "open" script allows users to ensure optimal use of the CanMap RouteLogistics product within a software program or application.

Tool Location

_samples\RteNA

How to Use the RteNA Tool

- Open the RteNA.apr
- Click the RteNA Tool button - located on the View GUI, to the left of the Help button

Important: All of the Network Analyst generated files including the *rte_na.nws directory must exist in the same directory before processing can begin. Any missing files will prevent routing from being possible.

File	Description
*AREA*rte.shp	Routing Shape File
*AREA*rte.shx	Routing Shape File
*AREA*rte.dbf	Routing Shape File
*AREA*rte.avl	ArcView Legend File
*AREA*trn.dbf	Turn restriction table
*AREA*rds_lut.dbf	RDS Lookup table
*AREA*rte_lut.dbf	RTE Lookup table

A converted rte file will be added to the View and the link to the turn restriction table (*trn_na.dbf) is established. The directory should contain the following files:

File	Description
*AREA*rte_na.shp	Resulting rte file compatible with Network Analyst
*AREA*rte_na.shx	Resulting rte file compatible with Network Analyst
*AREA*rte_na.dbf	Resulting rte file compatible with Network Analyst
*AREA*rte_na.sbn	Spatial Indexes
*AREA*rte_na.sbx	Spatial Indexes
*AREA*trn_na.dbf	Resulting trn file compatible with Network Analyst
*AREA*rte_na.nws	Directory for routing files as created by Network Analyst

At this point, users are ready to use Network Analyst for routing. (i.e. 'Find Best Route' function).

[38] This tool is currently provided for free and is not currently supported by DMTI Spatial. If you require any assistance please contact DMTI Spatial.

Appendix M: ArcView 3.2 Route to Network Analyst *(cont'd)*

Preserving or Re-Establishing the Link between the *rte_na and *trn_na files:

In order to perform routing in future sessions of Network Analyst, the project (RteNA.apr) must be saved to maintain the link between the *rte_na and *trn_na files. If you do not wish to save the project file, an alternative option is to re-establish the link between the two files by following the instructions given below for the 'SetTurnTable.ave' script.

How to Use 'SetTurnTable.ave'

Instructions for running the 'SetTurnTable.ave' script (located at: _samples\RteNA\Scripts)

Open a new session of ArcView 3.2
- Activate the Network Analyst extension
- From the project menu: File > Extensions > Check on the Network Analyst extension > Click OK

Open a new View
- From the Project window: Double click on the View icon or single click on the View icon > Click the New button

Add the converted *rte_na.shp to the View
- From the View menu: Click on View > Add Theme… > Browse for the file > Click OK

Open a new script document
- From the Project window: Double Click on the Scripts icon or single click on the Scripts icon > Click on the New button

Load the script into the new script document
- From the Script menu: Click on Script > Load Text File… > Browse to the Scripts directory select 'SetTurnTable.ave' > Click OK

Compile and run the script
- From the script menu: Click on Script > Compile > Click on the View to make it active > Click on the Window Menu > Select Script1 > Run

Select the *rte_na.shp theme from the list > Click OK

Browse to the *trn_na.dbf > Click OK

Close the Script window

Save the ArcView project to maintain the links generated within this process for future use

Important Notes to remember:

When running the RteNA.apr scripts, all files must have DMTI Spatial naming (ex: GTArte.shp). This means the files CANNOT be renamed, as the program will not recognize the required files.

After the processing is complete the original trn.dbf and *rte.* files can be removed from the directory as they are not used by Network Analyst.

If you start a new session and set the turntable, you must save the project to keep the link to the turntable.

Appendix N: ArcLogistics Route v3.0

File Descriptions

File	Description
Allst.shp	CanMap RouteLogistics
Oneway.shp	One Way Streets
Turn.shp	Turn Restrictions
Exit.shp	Highway Exit Numbers
Dtl-cnty.shp	Municipal boundaries
Zip.shp	Forward Sortation areas
Lakes.shp	Water Features
Parks.shp	Park Boundaries
States.shp	Provincial Boundaries

File Structure

Roads - Allst.shp

Field Name	Field Type	Field Size	Description
FULL_NAME	Character	69	Street Name
L_F_ADD	Decimal	6,0	From Left Address
L_T_ADD	Decimal	6,0	To Left Address
R_F_ADD	Decimal	6,0	From Right Address
R_T_ADD	Decimal	6,0	To Right Address
PREFIX	Character	2	Prefix Direction before Street Name (e.g. **W** 5 St)
PRE_TYPE	Character	10	Prefix Type before Street Name (e.g. **Rue** Jean)
NAME	Character	45	Street Name (e.g. **John** St E)
TYPE	Character	10	Street Type after Street Name (e.g. John **St** E)
SUFFIX	Character	2	Suffix Street Direction after Street Name (e.g. John St **E**)
ALIAS_NAME	Character	69	Alternate Street Name
FORMERNAME[39]	Character	69	Former Provincial Hwy Name
HWY_NAME	Character	69	Highway Names
HWY_NUM	Character	20	Highway Number(s)
CARTO	Decimal	3,0	Road Classification
CITYL	Character	70	City Name to the left of the road segment
CITYR	Character	70	City Name to the right of the road segment
ZIPL	Character	3	FSA (Forward Sortation Area) to the left of the road segment
ZIPR	Character	3	FSA (Forward Sortation Area) to the right of the road segment
STATE_ABBR	Character	2	Province Abbreviation (e.g. Ontario = ON)
TRNSCDAHWY	Decimal	1,0	1 = TransCanada Highway
YELOWHDHWY	Decimal	1,0	1 = Yellow Head Highway
TOLL_RD	Decimal	1,0	1 = Toll Road
SHAPEID	Decimal	9,0	Unique Identifier from ArcLogistics Route
USERID	Decimal	9,0	Unique Identifier from CanMap® Streetfiles
CFCC	Character	3	ArcLogistics Route code for classifying street
DISP_CODE	Decimal	2,0	ArcLogistics Route code for displaying street segments

[39] Applicable only in Ontario

ONEWAY	Decimal	1,0	1 = Oneway segment
ON_RAMP	Decimal	1,0	1 = On Ramp
OFF_RAMP	Decimal	1,0	1 = Off Ramp
EXIT_NUM	Character	30	Highway exit number
EXIT_DIR	Character	2	Direction of exit ramp
ROAD_DIR	Character	2	Segment direction is either from the Fnode to the Tnode (FT) or from the Tnode to the Fnode (TF)
FNODE	Decimal	9,0	Node begins line segment
TNODE	Decimal	9,0	Node ends line segment
F_ZLEV	Decimal	2	Elevation of Fnode
T_ZLEV	Decimal	2	Elevation of Tnode
SPEEDMILES[40]	Decimal	3,0	Estimated speed limit (miles per hour)
RDLENMILES	Decimal	8,3	Length of segment in miles
SPEEDKM[40]	Decimal	3,0	Estimated speed limit (kilometers per hour). See note below.
METERS	Decimal	8,3	Length of segment in meters
FT_MINUTES	Decimal	6,3	Estimated travel time in minutes based on speed limit and road length
TF_MINUTES	Decimal	6,3	Estimated travel time in minutes based on speed limit and road length
FERRY_TYPE	Character	68	Type of ferry route (ex. Passenger, vehicle, etc.)

One-way Streets (oneway.shp)

Field Name	Field Type	Field Size	Description
SHAPEID	Decimal	9,0	Unique Identifier from ArcLogistics Route
USERID	Decimal	9,0	Unique Identifier from CanMap® Streetfiles
ONEWAY	Decimal	1,0	1 = Oneway segment

Turn Restrictions (turn.shp)[41]

Field Name	Field Type	Field Size	Description
FSHAPEID	Decimal	9,0	From segment unique Identifier from ArcLogistics Route
TSHAPEID	Decimal	9,0	To segment unique Identifier from ArcLogistics Route
F_USERID	Decimal	9,0	From segment unique Identifier from CanMap RouteLogistics
T_USERID	Decimal	9,0	To segment unique Identifier from CanMap RouteLogistics

Highway Exit Numbers* (exit.shp)

Field Name	Field Type	Field Size	Description
EXIT_NUM	Character	30	Highway exit number
EXIT_DIR	Character	2	Direction of exit ramp

Municipality Boundaries (dtl-cnty.shp)

Field Name	Field Type	Field Size	Description
NAME	Character	70	Municipality Name
TYPE	Character	3	Type of Community

[40] For more information refer to Roads (rte)
[41] For more information refer to Turn Restrictions (trn)

Forward Sortation Areas (zip.shp)

Field Name	Field Type	Field Size	Description
ZIP	Character	3	FSA (first 3 digits of postal code)

Parks (parks.shp)

Field Name	Field Type	Field Size	Description
TYPE	Character	40	Type of recreational park

Provincial Water (lakes.shp)

Field Name	Field Type	Field Size	Description
NAME	Character	40	Lake/River Name

Provincial Outline (state.shp)

Field Name	Field Type	Field Size	Description
NAME	Character	68	Province Name

Appendix N: ArcLogistics Route v3.0 *(cont'd)*

Installation of CanMap RouteLogistics for ArcLogistics Route

1. Create a ***new directory*** for the data on one of your local drives.
2. Copy all the directories and files under the **\AIr\Nad83\CanmapRL\Geography\A*lr_data*** directory on the CD to this ***new directory.***
3. Delete the files in the ***..\ArcLogistics Route\Background*** directory from your computer, then copy the files in the **\AIr\Nad83\CanmapRL\Geography\B*ackground*** directory into ***..\ArcLogistics Route\Background.***
4. Under the Start Menu select ESRI\ArcLogistics Route – Administer Streets.
5. Click the Street Data option and then New. A Set Up Streets Dialog will be displayed.
6. Enter a Name for the New Street Dataset (e.g. Ontario).
7. Choose the unit for ArcLogistics Route to display distances in the MapView window.
8. Choose the unit used by the input data found in this folder **\AIr\Nad83\CanmapRL\Geography\A*lr_data.***
9. Browse to the folder location of the map data files.
10. Check the box to Rebuild Routing and Geocoding Indices.
11. Click OK. A default service area file will be created for the street dataset.
12. Your data is now ready for ArcLogistics Route. Close the Administer Streets window.
13. Open ArcLogistics Route.
14. Under File, select Open Service Area. Open the Service Area that you created under the Administer Streets window. Start using ArcLogistics Route.

Changing speeds in CanMap RouteLogistics for ArcLogistics Route

1. Close all windows associated with ArcLogistics Route
2. In the alr_data, make a backup copy of the allst.dbf file. For example, copy the allst.dbf to allst_bk.dbf
3. Import allst.dbf into Microsoft Access or open it in Microsoft Excel
4. Re-populate the SPEEDMILES field and the SPEEDKM field to your desired speeds
5. Re-calculate the FT_MINUTES and TF_MINUTES (they both should have the same time) using the following formula:
    1. *FT_MINUTES* = *Meters* * .001 / SPEEDKM * 60
    2. *TF_MINUTES* = *Meters* * .001 / SPEEDKM * 60
6. Save the changes to allst.dbf as a dbase 3 file
7. Re-open the Administrator window for ArcLogistics route and rebuild the routing and geocoding indices.
8. Re-open ArcLogistics Route and rebuild the routes

Appendix N: ArcLogistics Route v3.0 *(cont'd)*

Loading a newer version of CanMap RouteLogistics into ArcLogistics Route

If you have received a previous version of CanMap RouteLogistics in ArcLogistics Route format and wish to refresh the data with the new version contained on this CD, please follow the subsequent steps:

Note: This methodology is necessary if you have created Locations, Orders and Vehicles based on a previous version of CanMap RouteLogistics and you wish to preserve this information and use it in conjunction with the newer version of CanMap RouteLogistics. For Example, changing from CanMap RouteLogistics V4.2 to V6.1

1. Make a backup copy of your current directory containing CanMap RouteLogistics in ALR format and all Access databases (i.e. ALR.mdb, ALR1.mdb) containing your Orders, Locations, Vehicles, etc.
2. Copy the new CanMap RouteLogistics data in ALR format directly onto the existing older version of CanMapRouteLogistics in ALR format.

Example:
Current ALR data location:

C:_MY _FILES\ALRDATA\Gta\Alr_data\
C:_MY _FILES\ALRDATA\Gta\Background\

New data extracted from CD into "_MY_FILES" directory:

C:_MY _FILES\ALR\NAD83\CANMAPRL\GTA\Alr_data\
C:_MY _FILES\ALR\NAD83\CANMAPRL\GTA\Background\

   a. Note: It is important that the directory names and path remain the same as when the streets were last Indexed in the Administer Streets utility
   b. Note: Your Access databases (ALR.mdb, ALR1.mdb etc) will not be overwritten, but all other layers containing CanMap RouteLogistics will be overwritten.
3. Rebuild both Geocoding and Routing indices from the Administer streets prompt
4. Open ArcLogistics Route (specify the service area you are refreshing if you have more than one)
   a. Note: The colour of the Routing sub folders should be a slightly paler yellow than the main "Routing Folder". This indicates that ALR has detected your new CanMap RouteLogistics data
5. Reroute by using the "Build Route" button to refresh and create new routes based on the existing Locations, Vehicles and Orders.

Appendix O: SDC Format

The SDC v2.0 format files are available in the following packaged areas: Canada, Ontario, Quebec, British Columbia, Atlantic Region (PEI, NB, NS, NFL/Lab), Prairies/Central (AB, SK, MB, YK, NWT, NU), and GTA.

Software Requirements

CanMap RouteLogistics is packaged using SDC version 2.0 standards. As such, these files can only be used with versions of ESRI ArcGIS 9.x and above, including ArcIMS 9.x.

Because CanMap SDC files are standardized to comply with ESRI software standards**, it is necessary to install ESRI Street Map Rules (SMrules.exe)** in order ensure geocoding functionality.

File

\CanMapRL\SMrules.exe

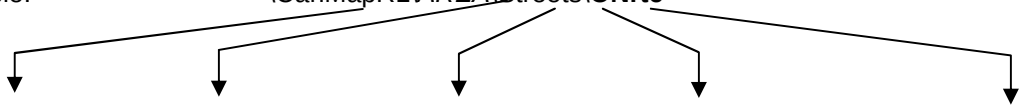
For more information on geocoding rules please refer to the following link:

http://support.esri.com/index.cfm?fa=knowledgebase.gisDictionary.search&searchTerm=geocoding%20rule%20base

SDC Naming Conventions

CanMap RouteLogistics SDC files are organized into the following directory structure and use the following directory and file naming conventions:

Example: \CanMapRL*AREA*\Streets**ONrte**



Product Directory	Geographic Area Directory	General Content Directory	Geographic Area Abbreviation	File Content Abbreviation
CanMapRL	ON	Streets	ON	rte

The geographic area directory area indicates the packaged areas, for example
ATLTC= Atlantic Region
PRCTL= Prairies/Central

For the layers' attributes, please refer to the *Data Dictionary* of CanMap RouteLogistics User Manual.

Routing Index

Routing Index is the routing indexes which enable routing functionality in ArcGIS 9.x and ArcIMS 9.x RouteServer.

Layer Location

\CanMapRL*AREA*\Streets*AREA*rte_GR.rsx\

Appendix O: SDC Format (*Cont'd*)

Layer Structure (*AREA*rte_GR)

Field Name	Type	Size	Description
ADDR_PD	Character	2	Prefix Direction component of the Primary Street Title (e.g. **W** 5 St)
ADDR_PT	Character	20	Prefix Street Type component of the Primary Street Title (e.g. **Rue** Jean)
ADDR_SN	Character	40	Street Name component of the Primary Street Title (e.g. **John** St E)
ADDR_ST	Character	20	Suffix Street Type component of the Primary Street Title (e.g. John **St** E)
ADDR_SD	Character	2	Suffix Direction component of the Primary Street Title (e.g. John St **E**)
ADDR1_PD	Character	2	Prefix Direction component of Alias Street Name
ADDR1_PT	Character	20	Prefix Street Type component of Alias Street Name
ADDR1_SN	Character	40	Street Name component of Alias Street Name
ADDR1_ST	Character	20	Suffix Street Type component of Alias Street Name
ADDR1_SD	Character	2	Suffix Direction component of Alias Street Name
ADDR2_PD	Character	2	Prefix Direction component of Former Provincial Hwy Name
ADDR2_PT	Character	20	Prefix Street Type component of Former Provincial Hwy Name
ADDR2_SN	Character	40	Street Name component of Former Provincial Hwy Name
ADDR2_ST	Character	20	Suffix Street Type component of Former Provincial Hwy Name
ADDR2_SD	Character	2	Suffix Direction component of Former Provincial Hwy Name
ADDR3_PD	Character	2	Prefix Direction component of Highway Numeric Name
ADDR3_PT	Character	20	Prefix Street Type component of Highway Numeric Name
ADDR3_SN	Character	40	Street Name component of Highway Numeric Name
ADDR3_ST	Character	20	Suffix Street Type component of Highway Numeric Name
ADDR3_SD	Character	2	Suffix Direction component of Highway Numeric Name
FROMLEFT	Decimal	6,0	Address on the Left side at the From end of the street segment
TOLEFT	Decimal	6,0	Address on the Left side at the To end of the street segment
FROMRIGHT	Decimal	6,0	Address on the Right side at the From end of the street segment
TORIGHT	Decimal	6,0	Address on the Right side at the To end of the street segment
PREDIR	Character	2	Prefix Direction component of the Street Title (e.g. **W** 5 St)
PRETYPE	Character	10	Prefix StreetType component of the Street Title (e.g. **Rue** Jean)
SUFTYPE	Character	10	Suffix StreetType component of the Street Title (e.g. John **St** E)
SUFDIR	Character	2	Suffix Direction component of the Street Title (e.g. John St **E**)
CARTO[42]	Decimal	3,0	Cartographic Road Classification
LEFT_MUN[43]	Character	70	Municipality
LEFT_FSA	Character	3	Forward Sortation Area
LEFT_PRV	Character	2	Province Abbreviation
UNIQUEID	Decimal	9,0	Unique Identifier of Street segment
ONEWAY	Decimal	1,0	One Way flag
FROMNODE	Decimal	9,0	Node begins road segment
TONODE	Decimal	9,0	Node ends road segment
SPD_KM	Decimal	3,0	Estimated speed limit (km per hour)

[42] For more information refer to Appendix D: Cartographic Road Classifications
[43] Source: Statistics Canada, Standard Geographical Classification (SGC), 2001

Appendix O: SDC Format (*Cont'd*)

FROM_ELEV	Integer		Relative Elevation Value of From node
TO_ELEV	Integer		Relative Elevation Value of To node
ONEWAYS2	Character	2	Oneway Road segment direction: FROMNODE to TONODE (FT) or TONODE to FROMNODE (TF)

Geocoding Index

The geocoding index enables geocoding in ArcIMS RouteServer and ArcGIS. ESRI calls upon the geocoding index via address locators, files with the *.loc extension. CanMap RouteLogistics provides four address locators:

File Location
\CanMapRL*AREA**sm_AREArte_gr_street_address.can.loc*
\CanMapRL*AREA**sm_AREArte_gr_street_address_altname.can.loc*
\CanMapRL*AREA*\rs_*AREArte_gr_street_Reverse.can.loc*
\CanMapRL*AREA*\rs_*AREArte_gr_street_address.can.loc*

The geocoding index itself is a series of files that point towards specific fields in the SDC files.

File Location
\CanMapRL*Area*\Streets*AREA*rte_GR.*idx*

For more information on geocoding please refer to the following link:
http://support.esri.com/index.cfm?fa=knowledgebase.gisDictionary.search&searchTerm=geocoding%20index

Layer Structure

The Geocoding Index layer structure is the same as Routing Index layer structure, please refer to Routing Index Layer Structure for the detailed information.

AXL files

Customizable AXL files are available for use with ESRI's ArcIMS software. These files attempt to mimic the CanMap RouteLogistics symbology and contain all CanMap RouteLogistics layers.

File Location
\CanMapRL*Area**Area*rtp.axl

In order for the *.axl files to work 'out of the box' the SDC files must be put into the following directory structure:

C:\SDC\CanMapRL*AREA*

Appendix P: ISO 19115:2003 Compliant Metadata

Metadata Notification

As of May 15th 2005, DMTI Spatial data products have metadata that are IS0 19115:2003 compliant.

This product now includes structured metadata files as provided in XML and/or HTM format. These metadata files reside with the graphic or database files to which they are associated. It is recommended that users review and customize the metadata as per their specific needs.

This latest addition to the CanMap® line of products is another enhancement that will benefit our users and increase overall product satisfaction.