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Road Network File, Reference Guide

2010

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Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

What's new?

- The 2010 Road Network File is available free of charge for download from the Statistics Canada website. The 2010 Road Network File contains road network updates since the previous release of this file in June 2009.

- Statistics Canada continues to use ongoing partnerships in the generation of the file. The primary opportunities for collaboration involve joint work on the development of datasets facilitating business operations of partnering agencies.

- Users may notice a change in the 2010 version of the Road Network File. The British Columbia Digital Road Atlas has been used to update the road network in British Columbia. Territorial sourced data has been used to realign the 2010 road network in the Northwest Territories.

Table of contents

1. About this guide

This reference guide is intended for users of the Road Network File. The guide provides an overview of the file, the general methodology used to create it, and important technical information for users.

Section 4, Data quality gives a detailed description of the various steps in the creation of the 2010 Road Network File. This section also provides information to evaluate the suitability of the data for a particular use.

Technical specifications in section 5 include system requirements, a record layout, and item descriptions. See Appendix C for file sizes.

Geographic terms and concepts are briefly described in the glossary (see Appendix A). More details can be found in the *2006 Census Dictionary* (Catalogue no. 92-566-XWE). Supplementary information is provided in the appendices.

This reference guide does not provide details on specific software packages that are available for use with the Road Network File. Users are advised to contact the appropriate software vendor for information.

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2. Overview

This guide covers the content, coverage and quality of the Road Network File created from the road layer coverage in Statistics Canada's digital geographic database, the National Geographic Database. The file reflects the National Geographic Database road layer content as it existed in March 2010. Only road features were selected from this database to create the Road Network File.

The Road Network File contains roads, road names, types, directions and address ranges. Address ranges are dwelling-based.

The Road Network File provides digital line coverage for Canada. There are 14 standard road network files:

- Canada
- 10 provinces and 3 territories

The Road Network File's digital coordinates are in latitude/longitude and are based on the North American Datum of 1983 (NAD83). The Road Network File is available in ArcInfo® format, Geography Markup Language format and MapInfo® format. See Technical specifications (section 5) for more details on record layouts and file formats.

Reference date

The geographic reference date is a date determined by Statistics Canada to finalize the geographic framework. The geographic reference date for this edition of the Road Network File is March 2010.

3. How to use this product

Purpose of the product

The Road Network File is a geographic reference product made available to users who wish to have an annually updated road network file.

The 2010 Road Network File can be used to replace previous versions of the Road Network File. However, the 2010 Road Network File does not replace the 2006 Road Network File, which is a similar product available as part of the 2006 suite of Geography products, and used in conjunction with products and services from the 2006 Census.

Note: It is recommended that the 2006 Road Network File be used as a basis for the retrieval of 2006 Census data for user-defined areas. Users can define their custom areas based on the roads in the 2006 Road Network File. Boundaries created with the 2006 Road Network File correspond to the 2006 geographic frame and therefore do not require additional boundary reconciliation work, which facilitates the geocoding process. For information on custom area creation and geocoding services, please contact the National Contact Centre at 1-800-263-1136 or infostats@statcan.gc.ca.

Limitations

Statistics Canada maintains road network file information to support the census and other Statistics Canada activities. The relative position of road network features is important in maps created for navigation and reference purposes; therefore, relative positional accuracy takes precedence over absolute positional accuracy. The Road Network File does not contain street information required for route optimization. For example, data on one-way streets, dead-ends and other street obstacles are not included in the road network file. Consequently, this file is not recommended for engineering applications, emergency dispatching services, surveying or legal applications.

The Road Network File contains road arcs with either 'true' address ranges, imputed address ranges, or no address ranges. Imputed address ranges are not meant to replace true address ranges for any purpose other than address geocoding. Thus, if the files are to be used for computer-aided dispatch or similar purposes (that require an address to be matched to a dissemination block or street), it may be necessary to supplement the file with local knowledge by updating existing true addresses and replacing imputed addresses.

The limitations of the Road Network File should be recognized for uses other than the mapping, analysis and retrieval of census data. See section 4, Data quality, for information related to the effective use of this file.

General methodology

The Road Network File is based on road network components extracted from the National Geographic Database. The National Geographic Database is maintained by Statistics Canada and Elections Canada for use in their various mapping applications. The National Geographic Database is continuously improved as a result of Statistics Canada’s partnership with Elections Canada, and with input from Natural Resources Canada’s National Topographic Database.

Content

This product contains road arcs with name, type, direction, and address range.

A large number of addresses are missing in the National Geographic Database (from which the Road Network File is derived). Some addresses were imputed in order to increase the number of complete address ranges in the final product. Imputed addresses were specifically created to assist users who wish to geocode addresses. See section 4, Data quality, for more information about the completeness of the information. See section 5, Technical specifications, for more details on record layouts and file formats of the Road Network File.

Comparisons with previous versions of the Road Network File

Differences between the 2010 Road Network File and with previous versions of the Road Network File are:

- The 2010 Road Network File contains additional roads, road names and address ranges.
- The 2010 Road Network File does not necessarily follow 2006 Census boundaries.

The 2006 Road Network File is compatible with the suite of 2006 Census Geography products.

Users may notice a change in the 2010 version of the Road Network File. The British Columbia Digital Road Atlas has been used to update the road network in British Columbia. Territorial sourced data has been used to realign the 2010 road network in the Northwest Territories.

4. Data quality

Spatial data quality elements provide information on the fitness-for-use of a spatial database by describing why, when and how the data are created, and how accurate the data are. The elements include an overview describing the purpose and usage, as well as specific quality elements reporting on lineage, positional accuracy, attribute accuracy, logical consistency and completeness. This information is provided to users for all spatial data products.

Lineage

Lineage describes the history of the spatial data, including descriptions of the source material from which the data were derived, and the methods of derivation. It also contains the dates of the source material, and all transformations involved in producing the final digital files.

Road layer
The data in the road layer were derived from Statistics Canada's Spatial Data Infrastructure environment based on a copy of the National Geographic Database. The National Geographic Database is a spatial database that contains the road network in Canada, as well as road attributes (name, type, direction, and address ranges).

Road information was incorporated from a variety of other sources, including municipal maps and road data from private companies. However, the timeliness of the National Geographic Database varies from region to region depending on the source data. See Appendix F.

Positional accuracy

Positional accuracy refers to the absolute and relative accuracy of the positions of geographic features. Absolute accuracy is the closeness of the coordinate values in a dataset to values accepted as or being true. Relative accuracy is the closeness of the relative positions of features to their respective relative positions accepted as or being true. Descriptions of positional accuracy include the quality of the final file or product after all transformations.

Absolute positional accuracy

Absolute positional accuracy describes the degree to which the position of features in a geographic database reflects their true position on the ground (i.e., the closeness of reported coordinate values to values accepted as true).

The information present in the Spatial Data Infrastructure road layer is provided for the purposes of statistical analysis and census operations only. The absolute position of roads on the Spatial Data Infrastructure varies with the source files and documents used to build and maintain the database. Therefore, the Spatial Data Infrastructure is not suitable for high precision measurement applications such as engineering, property transfers, or other uses that might require highly accurate measurements of the earth's surface.

Absolute positional accuracy is not a requirement for electoral and census processes.

Relative positional accuracy

Relative positional accuracy describes the degree to which the position of features in a geographic database reflects their true ground relationships.

For the National Geographic Database, relative positional accuracy is important. A road must appear in the proper position relative to other roads and physical features.

Attribute accuracy

Attribute accuracy refers to the accuracy of quantitative attributes and the correctness of non-quantitative attributes. Two road attributes were tested for accuracy: road name (name) and road address range. Road address range considers the completeness of addressing on individual arcs.

Road name

During the build phase, every effort was made to insure a proper transfer and association of a specific attribute (i.e., name, type, direction, and address range) to a specific geometric feature. This includes the association as well as its accuracy.

Information on road names and address range attributes within the Road Network File are presented in Table 4.1.

Logical consistency

Logical consistency refers to the fidelity of relationships between all variables in a dataset. For example, a road arc that does not have a road name should not have a road type.

During the build phase, the National Geographic Database dataset was thoroughly tested for logical consistency. Any violations of logical consistency were corrected.

Node-line-area relationships satisfy topological requirements as specified in the ArcInfo® data model.

Consistency with other products

The position of the arcs in the 2010 Road Network File is not necessarily consistent with 2006 and 2001 boundary and road network files.

Completeness

Completeness refers to the presence or absence of features, their attributes and relationships. Many new road features that were not previously found on earlier digital files at Elections Canada and Statistics Canada have been added to the National Geographic Database in order to create a more complete National Geographic Database road layer for all of Canada.

Roads

Features not found in previous road network file products were added to the 2010 Road Network File in order to improve nation-wide road coverage. Table 4.1 shows the number of road features on the 2010 Road Network File.

Table 4.1 Number of road features in the 2010 Road Network File

National level	Number of arcs	Arc length (kilometres)	Number of arcs with full address range on at least one side
With road name	1,564,535	710,060	1,108,881
Without road name	392,796	621,008	6
Canada	**1,957,331**	**1,331,068**	**1,108,887**

Source: Spatial Data Infrastructure (SDI), March 2010.

5. Technical specifications

Software formats

The Road Network File is available for download from the Statistics Canada website in the following formats:

- ArcInfo®
  File extension: .shp

- Geography Markup Language (GML) version 2.1.2
  File extension: .gml

- MapInfo®
  File extension: .tab

Installation instructions

The ArcInfo®, Geography Markup Language and MapInfo® files are compressed into WinZip® files (file extension .zip).

An additional template (.tem) file is included with the Geography Markup Language files for use with the free GIS data viewer Java Unified Mapping Platform (JUMP). Also, an XML schema file (.xsd) is included to describe and validate the structure and content of the .gml files.

The road names in the Road Network File contain accented characters. These characters can be seen in UNIX and Windows® versions of ArcInfo® and MapInfo®. They were tested on desktop versions of ArcGIS 8.3 and 9.0 and MapInfo® 7.0 and 7.8. The accents were also visible in ArcInfo® 8.01 in UNIX. To preserve accents, ArcToolbox™ is recommended for importing files into the desktop version of ArcGIS 9.0.

Geographic representation

The Road Network File is available on the Statistics Canada website in the following geographic representation:

Datum:	NAD83
Coordinates:	Longitude/Latitude

Record layout

Table 5.1 Record layout — ArcInfo® (.shp), Geography Markup Language (.gml), MapInfo® (.tab) files

Attribute name	Data type	Description
FID	Object ID (4)	Specific to ArcInfo®
Shape	Geometry	Specific to ArcInfo®
RB_UID	char (15)	Unique identifier of the arc
NAME	char (50)	Street name associated with the arc
TYPE	char (6)	Street type associated with the arc
DIRECTION	char (2)	Street direction associated with the arc
ADDR_FM_LE	number (9)	The civic address found on the left-hand side of the arc at the FROM node
ADDR_TO_LE	number (9)	The civic address found on the left-hand side of the arc at the TO node
ADDR_FM_RG	number (9)	The civic address found on the right-hand side of the arc at the FROM node
ADDR_TO_RG	number (9)	The civic address found on the right-hand side of the arc at the TO node

Attribute domain values

Representation of unknown or no value

The null value is used to represent values of the road's name, type and direction that are either missing or non-existent. The zero (0) is used when an address does not exist or is not known.

Street name

This indicates the street name associated with the arc.

Street type

This indicates the street type associated with the arc.

Table 5.2 Street type

Type	Description	Type	Description	Type	Description
N/A	Not applicable	COVE	Cove (E)	HOLLOW	Hollow (E)
< Null >	no type	CRES	Crescent (E)	HTS	Heights (E)
ABBEY	Abbey (E)	CREST	Crest (E)	HWY	Highway (E)
ACCESS	Access (E)	CRNRS	Corners (E)	ÎLE	Île (F)
ACRES	Acres (E)	CROFT	Croft (E)	IMP	Impasse (F)
AIRE	Aire (E)	CROIS	Croissant (F)	INLET	Inlet (E)
ALLEY	Alley (E)	CROSS	Crossing (E)	ISLAND	Island (E)
ALLÉE	Allée (F)	CRSSRD	Crossroads (E)	KEY	Key (E)
AUT	Autoroute (F)	CRT	Court (E)	KNOLL	Knoll (E)
AV	Avenue (F)	CTR	Centre (E)	LANDNG	Landing (E)
AVE	Avenue (E)	DALE	Dale (E)	LANE	Lane (E)
BAY	Bay (E)	DELL	Dell (E)	LANEWY	Laneway (E)
BEACH	Beach (E)	DESSTE	Desserte (F)	LINE	Line (E)
BEND	Bend (E)	DIVERS	Diversion (E)	LINK	Link (E)
BLOC	Bloc (F)	DOWNS	Downs (E)	LKOUT	Lookout (E)
BLOCK	Block (E)	DR	Drive (E)	LMTS	Limits (E)
BLVD	Boulevard (E)	DRPASS	Droit de passage (F)	LOOP	Loop (E)
BOUL	Boulevard (F)	ÉCH	Échangeur (F)	MALL	Mall (E)
BOURG	Bourg (F)	END	End (E)	MANOR	Manor (E)
BRGE	Barrage (F)	ESPL	Esplanade (E)	MAZE	Maze (E)
BROOK	Brook (E)	ESTATE	Estates (E)	MEADOW	Meadow (E)
BYPASS	By-pass (E)	EXPY	Expressway (E)	MEWS	Mews (E)
BYWAY	Byway (E)	EXTEN	Extension (E)	MONTÉE	Montée (F)
C	Centre (F)	FARM	Farm (E)	MOOR	Moor (E)
CAMPUS	Campus (E)	FIELD	Field (E)	MOUNT	Mount (E)
CAPE	Cape (E)	FOREST	Forest (E)	MTN	Mountain (E)
CAR	Carré (F)	FRONT	Front (E)	ORCH	Orchard (E)
CARREF	Carrefour (F)	FWY	Freeway (E)	PARADE	Parade (E)
CDS	Cul-de-sac (E)	GATE	Gate (E)	PARC	Parc (F)
CERCLE	Cercle (F)	GDNS	Gardens (E)	PASS	Passage (E)
CH	Chemin (F)	GLADE	Glade (E)	PATH	Path (E)
CHASE	Chase (E)	GLEN	Glen (E)	PEAK	Peak (E)
CIR	Circle (E)	GREEN	Green (E)	PINES	Pines (E)
CIRCT	Circuit (F)	GRNDS	Grounds (E)	PK	Park (E)
CLOSE	Close (E)	GROVE	Grove (E)	PKY	Parkway (E)
COMMON	Common (E)	HARBR	Harbour (E)	PL	Place (E)
CONC	Concession (E)	HAVEN	Haven (E)	PLACE	Place (F)
CÔTE	Côte (F)	HEATH	Heath (E)	PLAT	Plateau (E)
COUR	Cour (F)	HGHLDS	Highlands (E)	PLAZA	Plaza (E)
COURS	Cours (F)	HILL	Hill (E)	POINTE	Pointe (E)

Table 5.2 Street type (continued)

Type	Description	Type	Description	Type	Description
PORT	Port (E)	ROW	Row (E)	TRACE	Trace (E)
PROM	Promenade (F)	RTE	Route (E)	TRAIL	Trail (E)
PT	Point (E)	RTOFWY	Right of way (E)	TRNABT	Turnabout (E)
PTWAY	Pathway (E)	RUE	Rue (F)	TRUNK	Trunk (E)
PVT	Private (E)	RUIS	Ruisseau (F)	TSSE	Terrasse (F)
QUAI	Quai (F)	RUN	Run (E)	VALE	Vale (E)
QUAY	Quay (E)	SECTN	Section (E)	VIA	Via (E)
RAMP	Ramp (E)	SENT	Sentier (F)	VIEW	View (E)
RANG	Rang (F)	SIDERD	Sideroad (E)	VILLAS	Villas (E)
RD	Road (E)	SQ	Square (E)	VILLGE	Village (E)
RDPT	Rond point (F)	ST	Street (E)	VISTA	Vista (E)
REACH	Reach (E)	STROLL	Stroll (E)	VOIE	Voie (F)
RG	Range (E)	SUBDIV	Subdivision (E)	WALK	Walk (E)
RIDGE	Ridge (E)	TERR	Terrace (E)	WAY	Way (E)
RISE	Rise (E)	THICK	Thicket (E)	WHARF	Wharf (E)
RLE	Ruelle (F)	TLINE	Townline (E)	WOOD	Wood (E)
ROUTE	Route (F)	TOWERS	Towers (E)	WYND	Wynd (E)

Source: Spatial Data Infrastructure (SDI), March 2010.

Street direction

The arc direction is not the geographic direction of the road feature, but a description used to identify it. A two-character code is related to the arc when the feature is a single or multiple lane addressable street.

Table 5.3 Street direction

Direction	Description
Null	No type
E	East / Est
N	North / Nord
NE	North East / Nord-est
NO	Nord-ouest
NW	North West
O	Ouest
S	South / Sud
SE	South East / Sud-est
SO	Sud-ouest
SW	South West
W	West

Source: Spatial Data Infrastructure (SDI), March 2010.

Civic addresses (ADDR_FM_LE, ADDR_TO_LE, ADDR_FM_RG, ADDR_TO_RG)

A zero (0) is used when an address does not exist or is not known. This applies to all of the following:

ADDR_FM_LE
The civic address of the road feature found on the left-hand side of the arc at the FROM node.

ADDR_FM_RG
The civic address of the road feature found on the right-hand side of the arc at the FROM node.

ADDR_TO_LE
The civic address of the road feature found on the left-hand side of the arc at the TO node.

ADDR_TO_RG
The civic address of the road feature found on the right-hand side of the arc at the TO node.

Appendix A Glossary

Adjusted counts
'Adjusted counts' refer to previous census population and dwelling counts that were adjusted (i.e., recompiled) to reflect current census boundaries, when a boundary change occurs between the two censuses.

Block-face
A block-face is one side of a street between two consecutive features intersecting that street. The features can be other streets or boundaries of standard geographic areas.

Block-faces are used for generating block-face representative points, which in turn are used for geocoding and census data extraction when the street and address information are available.

Cartographic boundary files
Cartographic boundary files (CBFs) contain the boundaries of standard geographic areas together with the shoreline around Canada. Selected inland lakes and rivers are available as a supplementary layer.

Census agricultural region
Census agricultural regions (CARs) are composed of groups of adjacent census divisions. In Saskatchewan, census agricultural regions are made up of groups of adjacent census consolidated subdivisions, but these groups do not necessarily respect census division boundaries.

Census consolidated subdivision
A census consolidated subdivision (CCS) is a group of adjacent census subdivisions. Generally, the smaller, more urban census subdivisions (towns, villages, etc.) are combined with the surrounding, larger, more rural census subdivision, in order to create a geographic level between the census subdivision and the census division.

Census division
Census division (CD) is the general term for provincially legislated areas (such as county, *municipalité régionale de comté* and regional district) or their equivalents. Census divisions are intermediate geographic areas between the province/territory level and the municipality (census subdivision).

Census metropolitan area and census agglomeration
A census metropolitan area (CMA) or a census agglomeration (CA) is formed by one or more adjacent municipalities centred on a large urban area (known as the urban core). A CMA must have a total population of at least 100,000 of which 50,000 or more must live in the urban core. A CA must have an urban core population of at least 10,000. To be included in the CMA or CA, other adjacent municipalities must have a high degree of integration with the central urban area, as measured by commuting flows derived from census place of work data.

If the population of the urban core of a CA declines below 10,000, the CA is retired. However, once an area becomes a CMA, it is retained as a CMA even if its total population declines below 100,000 or the population of its urban core falls below 50,000. The urban areas in the CMA or CA that are not contiguous to the urban core are called the urban fringe. Rural areas in the CMA or CA are called the rural fringe.

When a CA has an urban core of at least 50,000, it is subdivided into census tracts. Census tracts are maintained for the CA even if the population of the urban core subsequently falls below 50,000. All CMAs are subdivided into census tracts.

Census metropolitan area and census agglomeration influenced zone
The census **m**etropolitan area and census agglomeration **i**nfluenced **z**one (MIZ) is a concept that geographically differentiates the area of Canada outside census metropolitan areas (CMAs) and census agglomerations (CAs). Census subdivisions outside CMAs and CAs are assigned to one of four categories according to the degree of influence (strong, moderate, weak or no influence) that the CMAs and/or CAs have on them.

Census subdivisions (CSDs) are assigned to a MIZ category based on the percentage of their resident employed labour force that has a place of work in the urban core(s) of CMAs or CAs. CSDs with the same degree of influence tend to be clustered. They form zones around CMAs and CAs that progress through the categories from 'strong' to 'no' influence as distance from the CMAs and CAs increases.

Census subdivision
Census subdivision (CSD) is the general term for municipalities (as determined by provincial/territorial legislation) or areas treated as municipal equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories).

Census tract
Census tracts (CTs) are small, relatively stable geographic areas that usually have a population of 2,500 to 8,000. They are located in census metropolitan areas and in census agglomerations with an urban core population of 50,000 or more in the previous census.

A committee of local specialists (for example, planners, health and social workers, and educators) initially delineates census tracts in conjunction with Statistics Canada. Once a census metropolitan area (CMA) or census agglomeration (CA) has been subdivided into census tracts, the census tracts are maintained even if the urban core population subsequently declines below 50,000.

Coordinate system
A coordinate system is a reference system based on mathematical rules for specifying positions (locations) on the surface of the earth. The coordinate values can be spherical (latitude and longitude) or planar (such as Universal Transverse Mercator).

Cartographic boundary files, digital boundary files, representative points and road network files are disseminated in latitude/longitude coordinates.

Datum
A datum is a geodetic reference system that specifies the size and shape of the earth, and the base point from which the latitude and longitude of all other points on the earth’s surface are referenced.

Designated place
A designated place (DPL) is normally a small community or settlement that does not meet the criteria established by Statistics Canada to be a census subdivision (an area with municipal status) or an urban area.

Designated places are created by provinces and territories, in cooperation with Statistics Canada, to provide data for submunicipal areas.

Digital boundary files
Digital boundary files (DBFs) portray the boundaries used for 2006 Census collection and, therefore, often extend as straight lines into bodies of water.

Dissemination area
A dissemination area (DA) is a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks. It is the smallest standard geographic area for which all census data are disseminated. DAs cover all the territory of Canada.

Dissemination block
A dissemination block (DB) is an area bounded on all sides by roads and/or boundaries of standard geographic areas. The dissemination block is the smallest geographic area for which population and dwelling counts are disseminated. Dissemination blocks cover all the territory of Canada.

Economic region
An economic region (ER) is a grouping of complete census divisions (CDs) (with one exception in Ontario) created as a standard geographic unit for analysis of regional economic activity.

Ecumene
Ecumene is a term used by geographers to mean inhabited land. It generally refers to land where people have made their permanent home, and to all work areas that are considered occupied and used for agricultural or any other economic purpose. Thus, there can be various types of ecumenes, each having their own unique characteristics (population ecumene, agricultural ecumene, industrial ecumene, etc.).

Federal electoral district
A federal electoral district (FED) is an area represented by a member of the House of Commons. The federal electoral district boundaries used for the 2006 Census are based on the 2003 Representation Order.

Geocoding
Geocoding is the process of assigning geographic identifiers (codes) to map features and data records. The resulting geocodes permit data to be linked geographically.

Households, postal codes and place of work data are linked to block-face representative points when the street and address information is available; otherwise, they are linked to dissemination block (DB) representative points. In some cases, postal codes and place of work data are linked to dissemination area (DA) representative points when they cannot be linked to DBs. As well, place of work data are linked to census subdivision representative points when the data cannot be linked to DAs.

Geographic code
A geographic code is a numerical identifier assigned to a geographic area. The code is used to identify and access standard geographic areas for the purposes of data storage, retrieval and display.

Geographic reference date
The geographic reference date is a date determined by Statistics Canada for the purpose of finalizing the geographic framework for which census data will be collected, tabulated and reported. For the 2006 Census, the geographic reference date is January 1, 2006.

Land area
Land area is the area in square kilometres of the land-based portions of standard geographic areas.

Land area data are unofficial, and are provided for the sole purpose of calculating population density.

Locality
'Locality' (LOC) refers to the historical place names of former census subdivisions (municipalities), former designated places and former urban areas, as well as to the names of other entities, such as neighbourhoods, post offices, communities and unincorporated places.

Map projection
A map projection is the process of transforming and representing positions from the earth's three-dimensional curved surface to a two-dimensional (flat) surface. The process is accomplished by a direct geometric projection or by a mathematically derived transformation.

The Lambert conformal conic map projection is widely used for general maps of Canada at small scales and is the most common map projection used at Statistics Canada.

National Geographic Database
The National Geographic Database (NGD) is a shared database between Statistics Canada and Elections Canada. The database contains roads, road names and address ranges. It also includes separate reference layers containing physical and cultural features, such as hydrography and hydrographic names, railroads and power transmission lines.

Place name
'Place name' refers to the set of names that includes current census subdivisions (municipalities), current designated places and current urban areas, as well as the names of localities.

Population density
Population density is the number of persons per square kilometre.

Postal code
The postal code is a six-character code defined and maintained by Canada Post Corporation for the purpose of sorting and delivering mail.

Province or territory
Province and territory refer to the major political units of Canada. From a statistical point of view, province and territory are basic areas for which data are tabulated. Canada is divided into 10 provinces and 3 territories.

Reference map
A reference map shows the location of the geographic areas for which census data are tabulated and disseminated. The maps display the boundaries, names and codes of standard geographic areas, as well as major cultural and physical features, such as roads, railroads, coastlines, rivers and lakes.

Representative point
A representative point is a point that represents a line or a polygon. The point is centrally located along the line, and centrally located or population weighted in the polygon.

Representative points are generated for block-faces, dissemination blocks, dissemination areas, census subdivisions, urban areas and designated places.

Households, postal codes and place of work data are linked to block-face representative points when the street and address information is available; otherwise, they are linked to dissemination block (DB) representative points. In some cases, postal codes and place of work data are linked to dissemination area (DA) representative points when they cannot be linked to DBs. As well, place of work data are linked to census subdivision representative points when the data cannot be linked to DAs.

Road network file
The road network file (RNF) contains roads, road names, address ranges and road ranks for the entire country. Most commonly, address ranges are dwelling-based.

Rural area
Rural areas include all territory lying outside urban areas. Taken together, urban and rural areas cover all of Canada.

Rural population includes all population living in the rural fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as population living in rural areas outside CMAs and CAs.

Spatial Data Infrastructure
The Spatial Data Infrastructure (SDI), formerly known as the National Geographic Base (NGB), is an internal, maintenance database that is not disseminated outside of Statistics Canada. It contains roads, road names and address ranges from the National Geographic Database (NGD), as well as boundary arcs of standard geographic areas that do not follow roads, all in one integrated line layer. The database also includes a related polygon layer consisting of basic blocks (BB) (basic blocks are the smallest polygon units in the database, and are formed by the intersection of all roads and the arcs of geographic areas that do not follow roads), boundary layers of standard geographic areas, and derived attribute tables, as well as reference layers containing physical and cultural features (such as hydrography, railroads and power transmission lines) from the NGD.

The SDI supports a wide range of census operations, such as the maintenance and delineation of the boundaries of standard geographic areas (including the automated delineation of dissemination blocks, dissemination areas and urban areas), and geocoding. The SDI is also the source for generating many geography products for the 2006 Census, such as cartographic boundary files and road network files.

Spatial data quality elements
Spatial data quality elements provide information on the fitness for use of a spatial database by describing why, when and how the data are created, and how accurate the data are. The elements include an overview describing the purpose and usage, as well as specific quality elements reporting on the lineage, positional accuracy, attribute accuracy, logical consistency and completeness. This information is provided to users for all spatial data products disseminated for the census.

Standard Geographical Classification
The Standard Geographical Classification (SGC) is Statistics Canada's official classification for three types of geographic areas: provinces and territories, census divisions (CDs) and census subdivisions (CSDs). The SGC provides unique numeric identification (codes) for these hierarchically related geographic areas.

Statistical Area Classification
The Statistical Area Classification (SAC) groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration, a census **m**etropolitan area and census agglomeration **i**nfluenced **z**one (strong MIZ, moderate MIZ, weak MIZ or no MIZ), or the territories (Yukon, Northwest Territories and Nunavut). The SAC is used for data dissemination purposes.

Thematic map
A thematic map shows the spatial distribution of one or more specific data themes for standard geographic areas. The map may be qualitative in nature (e.g., predominant farm types) or quantitative (e.g., percentage population change).

Urban area
An urban area has a minimum population concentration of 1,000 persons and a population density of at least 400 persons per square kilometre, based on the current census population count. All territory outside urban areas is classified as rural. Taken together, urban and rural areas cover all of Canada.

Urban population includes all population living in the urban cores, secondary urban cores and urban fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as the population living in urban areas outside CMAs and CAs.

Urban core, urban fringe and rural fringe
'Urban core, urban fringe and rural fringe' distinguish between central and peripheral urban and rural areas within a census metropolitan area (CMA) or census agglomeration (CA).

'Urban core' is a large urban area around which a CMA or a CA is delineated. The urban core must have a population (based on the previous census) of at least 50,000 persons in the case of a CMA, or at least 10,000 persons in the case of a CA.

The urban core of a CA that has been merged with an adjacent CMA or larger CA is called the 'secondary urban core'.

'Urban fringe' includes all small urban areas within a CMA or CA that are not contiguous with the urban core of the CMA or CA.

'Rural fringe' is all territory within a CMA or CA not classified as an urban core or an urban fringe.

Urban population size group
The term 'urban population size group' refers to the classification used in standard tabulations where urban areas are distributed according to the following predetermined size groups, based on the current census population.

1,000	to	2,499
2,500	to	4,999
5,000	to	9,999
10,000	to	24,999
25,000	to	49,999
50,000	to	99,999
100,000	to	499,999
500,000	and over	

Tabulations are not limited to these predetermined population size groups; the census database has the capability of tabulating data according to any user-defined population size group.

Appendix B Spatial file naming convention

Spatial product file names follow a spatial file naming convention. The geographic area and code, file type, geographic reference date, software type and language are embedded within the file name. Standardizing the names of the files facilitates the storage of compressed files, all having the extension .zip.

Each file name is 13 characters in length. All alphabetic characters are in lower case to maintain consistency.

First character: projection of file

g if projection is Geographic (latitude/longitude)
l if projection is Lambert conformal conic

Next three characters: primary geographic area of file

Table B.1 Spatial file naming convention — geographic area of file

Geographic area/product	English file	French file
National/provincial	pr_	pr_
Federal electoral district	fed	cef
Economic region	er_	re_
Census division	cd_	dr_
Census subdivision	csd	sdr
Census agricultural region	car	rar
Census consolidated subdivision	ccs	sru
Census metropolitan area/census agglomeration	cma	rmr
Census tract	ct_	sr_
Urban area	ua_	ru_
Designated place	dpl	ld_
Dissemination area	da_	ad_
Dissemination block	db_	id_
Population ecumene	ecu	eco
Population ecumene - national/provincial	epr	epr
Population ecumene - census division	ecd	edr
Agricultural ecumene	eca	eca
Road network file	rnf	frr
Road network and geographic attribute file	rgf	frg
Forward sortation area	fsa	rta
International boundary files (part of mainland U.S.A. and Alaska as well as Greenland)	int	int
Supporting hydrography (Great Lakes, St. Lawrence River, oceans, etc.)	hy_	hy_

Next three numbers: geographic code of coverage

Table B.2 Spatial file naming convention — geographic code of coverage

National, provincial and territorial coverages	
000	Canada
010	Newfoundland and Labrador
011	Prince Edward Island
012	Nova Scotia
013	New Brunswick
024	Quebec
035	Ontario
046	Manitoba
047	Saskatchewan
048	Alberta
059	British Columbia
060	Yukon
061	Northwest Territories
062	Nunavut

Next character: file type

Table B.3 Spatial file naming convention — file type

Character	Description
a	if digital boundary file, detailed coverage for large-scale mapping excluding hydrographic coverage
b	if cartographic boundary file, detailed coverage for small-scale mapping
c	if detailed interior lakes hydrographic coverage (polygon)
d	if detailed interior rivers hydrographic coverage (line)
e	ecumene
f	if detailed interior lakes hydrographic coverage – closure lines (line)
g	cartographic boundary file, generalized for desktop mapping
h	additional cartographic international boundary coverage and hydrographic coverage of Great Lakes, St. Lawrence River and surrounding oceans
l	if detailed interior islands (part of hydrographic coverage [polygon])
r	road network files

Next two numbers: geographic reference date

The geographic reference date is a date determined by Statistics Canada for the purpose of finalizing the geographic framework for which census data will be collected, tabulated and reported. For 2006 Census products, the geographic reference date is January 1, 2006. The geographic reference date for this edition of the Road Network File is March 2010.

05	if geographic reference date is 2005
06	if geographic reference date is 2006
07	if geographic reference date is 2007
08	if geographic reference date is 2008
09	if geographic reference date is 2009
10	if geographic reference date is 2010

Next character: file format

a	ArcInfo® (.shp)
g	Geography Markup Language (.gml)
m	MapInfo® (.tab)

Final two characters: language

_e	English
_f	French

Example of the use of the file naming convention

The 2010 Road Network File for Alberta with English attributes in ArcInfo® format:

grnf048r10a_e.shp

Appendix C File names, 2010 Road Network File

Table C.1 File names and approximate sizes — 2010 Road Network File

Geographic area	ArcInfo® file name	Size MB	Geography Markup Language file name	Size MB	MapInfo® file name	Size MB
Canada	grnf000r10a_e.zip	257	…	…	grnf000r10m_e.zip	137
Newfoundland and Labrador	grnf010r10a_e.zip	8	grnf010r10g_e.zip	8	grnf010r10m_e.zip	5
Prince Edward Island	grnf011r10a_e.zip	5	grnf011r10g_e.zip	5	grnf011r10m_e.zip	3
Nova Scotia	grnf012r10a_e.zip	11	grnf012r10g_e.zip	12	grnf012r10m_e.zip	7
New Brunswick	grnf013r10a_e.zip	10	grnf013r10g_e.zip	10	grnf013r10m_e.zip	7
Quebec	grnf024r10a_e.zip	50	grnf024r10g_e.zip	50	grnf024r10m_e.zip	29
Ontario	grnf035r10a_e.zip	63	grnf035r10g_e.zip	63	grnf035r10m_e.zip	35
Manitoba	grnf046r10a_e.zip	16	grnf046r10g_e.zip	15	grnf046r10m_e.zip	9
Saskatchewan	grnf047r10a_e.zip	30	grnf047r10g_e.zip	29	grnf047r10m_e.zip	15
Alberta	grnf048r10a_e.zip	34	grnf048r10g_e.zip	34	grnf048r10m_e.zip	19
British Columbia	grnf059r10a_e.zip	47	grnf059r10g_e.zip	47	grnf059r10m_e.zip	25
Yukon	grnf060r10a_e.zip	3	grnf060r10g_e.zip	3	grnf060r10m_e.zip	3
Northwest Territories	grnf061r10a_e.zip	3	grnf061r10g_e.zip	3	grnf061r10m_e.zip	3
Nunavut	grnf062r10a_e.zip	3	grnf062r10g_e.zip	3	grnf062r10m_e.zip	3

… not applicable

Note: Zipped files include *Road Network File, Reference Guide, 2010*, catalogue number 92-500-GIE and *Geography Catalogue*, Census year 2006, catalogue number 92-196-XIE.

Appendix D Geography Markup Language (GML)

Scope

The Geography Markup Language (GML) is an XML encoding for the modelling, transport and storage of geographic information including both the spatial and non-spatial properties of geographic features. This specification defines the XML Schema syntax, mechanisms, and conventions that:

- Provide an open, vendor-neutral framework for the definition of geospatial application schemas and objects
- Allow profiles that support proper subsets of GML framework descriptive capabilities
- Support the description of geospatial application schemas for specialized domains and information communities
- Enable the creation and maintenance of linked geographic application schemas and datasets
- Support the storage and transport of application schemas and datasets
- Increase the ability of organizations to share geographic application schemas and the information they describe.

U.S. Census Bureau partnership – TIGER/GML

Statistics Canada has committed to working with the U.S. Census Bureau to ensure cross-border consistency in our products, and foster the development and application of a common, North American data model.

Like the United Kingdom Ordnance Survey and the U.S. Census Bureau, Statistics Canada has chosen to disseminate data in the Open Geospatial Consortium standard Geography Markup Language (GML) format. This standard allows organisations to achieve maximum compatibility not only of format but eventually of content.

Example of Road Network File dataset in GML format

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<wfs:FeatureCollection xmlns:c2006="http://geodepot.statcan.ca/2006"
                xmlns:ogc="http://www.opengis.net/ogc"
                xmlns:gml="http://www.opengis.net/gml"
                xmlns:wfs="http://www.opengis.net/wfs"
                xmlns:xlink="http://www.w3.org/1999/xlink"
                xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
                xmlns="http://geodepot.statcan.ca/2006"
                xsi:schemaLocation="http://www.opengis.net/wfs
http://schemas.opengis.net/wfs/1.0.0/WFS-basic.xsd http://geodepot.statcan.ca/2006
statcan_prod.xsd">
        <gml:boundedBy>
                <gml:Box srsName="">
                        <gml:coordinates>-119.228449265,54.330090996000024 -
61.35852484600002,82.51446848699999</gml:coordinates>
                </gml:Box>
        </gml:boundedBy>
```

Example of Road Network File dataset in GML format (continued)

```
        <gml:featureMember>
                <RoadSegment fid="C2006_RF_3600836">
                        <rbUid>3600836</rbUid>
                        <addrFmLeft>0</addrFmLeft>
                        <addrToLeft>0</addrToLeft>
                        <addrFmRght>0</addrFmRght>
                        <addrToRght>0</addrToRght>
                        <centreline>
                                <gml:LineString srsName="">
                                        <gml:coordinates decimal="." cs="," ts=" ">-
76.51852159700002,64.23515732300001 -76.51839662499998,64.23517135399999 -
76.51916094299997,64.23613302899997 -76.51851753599999,64.23621935699998 -
76.51795864299999,64.23636651800001 -76.51783447100001,64.23658610500001 -
76.51759816600003,64.236793681 -76.51675812100001,64.23680721300002 -
76.51622596800001,64.23680196700002 </gml:coordinates>
                                </gml:LineString>
                        </centreline>
                </RoadSegment>
        </gml:featureMember>
        <gml:featureMember>
                <RoadSegment fid="C2006_RF_3233761">
                        <rbUid>3233761</rbUid>
                        <name>Ataani</name>
                        <addrFmLeft>316</addrFmLeft>
                        ...etc...
                </RoadSegment>
        </gml:featureMember>
</wfs:FeatureCollection>
```

Appendix E National Road Network (NRN), GeoBase

In order to continue improving the quality and relevance of the spatial infrastructure, Statistics Canada has initiated a long term project in partnership with Elections Canada to migrate the Road Network File to the Department of Natural Resources' National Road Network (NRN) model in time for the 2011 Census of population. Additional agreements with provincial and territorial stakeholders are in the process of being negotiated and will become a source of Global Positioning System (GPS) compliant data with more accurate and timely attribute information.

The Department of Natural Resources' National Road Network (NRN) is available free of charge from the GeoBase web portal: http://www.geobase.ca/

National Road Network (NRN) - Description[1]

The second edition (2.0) of the National Road Network data available via the GeoBase portal will be gradually populated to introduce address information to the 1,100,000 kilometres of road network data. The second edition of the NRN will contain the representation of a continuous accurate centerline for all non-restricted use roads in Canada (5 metres or more in width, drivable and no barriers denying access) to which will be added a set of basic attributes, street name, place name and block face address ranges.

The work involved in developing the second edition of the NRN began in 2003 and took two years to complete. The consultation process was accomplished with one-on-one meetings with closest to source providers as well as through national workshops that involved federal, provincial, territorial and municipal stakeholders alike.

In 2005, the second edition of the NRN model was adopted by the Inter Agency Committee on Geomatics (IACG) members and the Canadian Council on Geomatics (CCOG) members. The new NRN model and content has been defined through national consensus. The NRN contains a standardized and homogeneous data representation. Each geometric feature has an assigned National Identifier (NID). The NID is populated with a universally unique identifier (UUID). The NIDs are needed for the management of the data over time and will also be used to identify what changes have occurred between two distributed versions.

New edition 2.0 NRN Partnership agreements are currently being jointly negotiated by Natural Resources Canada and Statistics Canada to secure 'closest to source' maintenance principles of GeoBase. It is important to note that the GeoConnections program is providing funding opportunities to participating provinces, territories and lead federal agencies maintaining NRN data.

NRN datasets coming from authoritative data sources will be posted gradually over the coming months. By visiting the GeoBase portal on a regular basis, users will be kept informed of available GeoBase NRN releases.

1. **Source:** Department of Natural Resources, http://www.geobase.ca/geobase/en/data/nrn/description.html

Appendix F List of sources used to update the National Geographic Database

Table F.1 List of sources used to update the National Geographic Database

Source
911 - Emergency Services
Canada Post Corporation
Commission de toponymie du Québec
Digital Chart of the World 1:1,000,000
British Columbia Digital Road Atlas
GeoComm
Land Information Ontario
Municipality
Newfoundland Telephone Service
National Geographic Database
National Hydro Network GeoBase
National Road Network version 2 GeoBase
Nova Scotia
National Topographic Database 1:250,000
Ontario Road Network
Prince Edward Island Geomatics
Province/Territory Topographic Mapping Agency
Service New Brunswick
Telus
Teranet

Unrestricted use licence agreement for Statistics Canada's 2010 Road Network File

This is a legal agreement between you, hereinafter referred to as the “Licensee,” and Her Majesty the Queen in Right of Canada (Canada) as represented by the Minister of Industry (Statistics Canada), hereinafter referred to as the “Licensor.” BY ACCESSING, DOWNLOADING, PRINTING OR USING THE DATA, INFORMATION AND MATERIALS BEING PROVIDED WITH, OR ACCESSIBLE PURSUANT TO THIS AGREEMENT, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, YOU MUST IMMEDIATELY DISPOSE OF ANY SUCH DATA, INFORMATION, MATERIALS AND ANY DERIVED PRODUCTS.

I WHEREAS the Licensor is the owner or licensee of intellectual property rights in and to digital data contained in the database known as 2010 Road Network File;

II AND WHEREAS the Licensee wishes to obtain certain rights to the Data, in accordance with the terms and conditions herein contained;

III AND WHEREAS the Licensor wishes to grant to the Licensee certain rights to the Data, in accordance with the terms and conditions herein contained;

IV AND WHEREAS the Licensor represents that it has full authority to grant the rights desired by the Licensee on the terms and conditions herein contained;

V AND WHEREAS the parties hereto are desirous of entering into a licence agreement on the basis herein set forth,

NOW THEREFORE, in consideration of the covenants contained in this Agreement, the parties agree as follows:

1.0 Definitions

1.1 “Agreement” means this Unrestricted Use Licence Agreement and all schedules annexed to this agreement, as the same may be amended from time to time in accordance with the provisions hereof.

1.2 “Data” means any original and fixed digital data (i.e., that is transmitted electronically), metadata, software or documentation licensed pursuant to the terms and conditions of this Agreement.

1.3 “Derived Products” means any product or service created from, or made functional through, the use of all or part of the Data.

1.4 “Intellectual Property Rights” means any and all intellectual property rights recognized by the law, including any intellectual property right protected through legislation.

1.5 “Licensor’s Data” means that Data, the Intellectual Property Rights of which vest with the Licensor.

1.6 “Licensor’s Licensed Rights” means those rights conferred upon the Licensor by third parties over the use of Data which is not the Licensor’s Data.

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3.1 Subject to this Agreement, the Licensor hereby grants to the Licensee a non-exclusive, world-wide, non-assignable, royalty-free right and licence to exercise such of the Licensor's Licensed Rights and such of the Licensor's Intellectual Property Rights in the Data as is necessary to use, reproduce, extract, modify, translate, further develop, distribute the Data, manufacture or cause to be manufactured and sell or license or cause to be sold or licensed Derived Products, and to sub-licence any or all of such rights, PROVIDED:

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3.2 The Intellectual Property Rights arising from any Modifications or from the manufacture of Derived Products, effected by or for the Licensee, shall vest in the Licensee or in such person as the Licensee shall decide.

4.0 Acknowledgement of source and incorporation of metadata

4.1 The Licensee shall include the following notice where any of the Data is contained within Derived Products,

Source: Geography Division, Statistics Canada, 2010 Road Network File, 92-500-XWE, 92-500-XWF
The incorporation of data sourced from Statistics Canada within this product shall not be construed as constituting an endorsement by Statistics Canada of such product

or any other notice deemed appropriate by the Licensor.

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5.1 The Licensor makes no representation or warranty of any kind with respect to the accuracy, usefulness, novelty, validity, scope, completeness or currency of the Data, at any time and from time to time, and expressly disclaims any implied warranty of merchantability or fitness for a particular purpose of the Data. The Licensor does not ensure or warrant compatibility with past, current or future versions of computer software to access the Data.

5.2 The Licensee acknowledges having received notice of the disclaimer set out above and accepts the Data on an “as is” basis, without representations or warranties of any kind. No oral or written information or advice given by the Licensor, at any time or from time to time, shall create or evidence, or be deemed to create or evidence, a contractual representation, warranty or guarantee of any kind.

5.3 The Licensee shall have no recourse against the Licensor, its officers, directors, employees, authorized agents and contractors, whether by way of any suit or action or other, for any loss, liability, damage or cost that the Licensee may suffer or incur at any time, by reason of the Licensee's possession or use of the Data or arising out of the exercise by the Licensee of its rights hereunder.

5.4 The Licensee shall indemnify the Licensor, its officers, directors, employees, authorized agents and contractors from all claims whatsoever alleging loss, costs, expenses, damages or injuries (including injuries resulting in death) arising out of the Licensee’s possession or use of the Data or the exercise by the Licensee of its rights hereunder.

5.5 The Licensee’s obligation to indemnify the Licensor, its officers, directors, employees, authorized agents and contractors, under this Agreement shall not affect or prejudice the Licensor from exercising any other rights under law.

5.6 The provisions of this Article shall survive termination of this Agreement.

6.0 Termination

6.1 This Agreement may be terminated

(i) automatically and without notice, if the Licensee commits or permits a breach of any of its covenants or obligations under this Agreement;
(ii) upon written notice of termination by the Licensee at any time, and such termination shall take effect thirty (30) days after the receipt by the Licensor of such notice; or
(iii) upon mutual agreement of the parties.

6.2 Upon termination of this Agreement, for whatever reason, the Licensee’s rights under section 3 shall immediately cease; and all obligations of the Parties which expressly or by their nature survive termination shall continue in full force and effect subsequent to and notwithstanding such termination, until they are fully satisfied or by their nature expire. For greater clarity, but without restricting the generality of the foregoing, the following provisions survive termination of this Agreement:

- section 5 (representations, warranties, indemnities)

6.3 Notwithstanding subsections 6.1 and 6.2 above, the Licensee may continue to use the Data for the purpose of completing orders of Derived Products made before the termination date of this Agreement

6.4 Notwithstanding the termination of this Agreement, all agreements entered into by the Licensee in the exercise of its rights under section 3 thereof prior to such termination and all obligations imposed therein shall continue in full force and effect subject to their terms.

7.0 Generalities

7.1 Applicable Law
This Agreement shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws of Ontario and Canada, as applicable.

7.2 Entirety of Agreement
This Agreement hereto constitute the entire agreement between the parties with respect to its subject matter. This Agreement may only be amended in writing, signed by both parties, which expressly states the intention to amend this Agreement.

7.3 Alternate Dispute Resolution
If a dispute arises concerning this Agreement, or if a proposed modification of any term of this Agreement cannot be agreed between the parties, the parties shall attempt to resolve the matter first by negotiation.

If the parties have not succeeded in negotiating a resolution, then they shall jointly submit the dispute to a mutually accepted mediator. If the parties cannot agree on an acceptable mediator, then either party may submit the dispute to binding arbitration.

The arbitral tribunal shall be governed by the UN Commercial Arbitration Code (the “Code”), referred to in the Commercial Arbitration Act, R.S.C 1985, c. C-4.6, and judgment upon the award rendered by the arbitral tribunal may be entered in any court having jurisdiction over the matter.

The arbitral tribunal shall consist of one arbitrator chosen by the parties. Subject to the Code, the parties agree that the award and determination of the arbitral tribunal shall be final and binding on both parties, shall be without right of appeal and shall be the exclusive remedy between the parties regarding any claims, counterclaims, issues or disputes presented to the arbitral tribunal.

Costs
The Parties shall bear the costs of the mediation equally, except that each party shall bear its own personal costs of the mediation.

The costs of the arbitral tribunal’s fees and expenses shall be shared equally by the parties. The parties shall bear their own personal costs except that the losing party shall pay all costs, fees, levies and taxes arising from and necessitated by the enforcement of the arbitral tribunal’s award, including, without limitation, registration, enforcement charges or other judicial levies or costs

7.4 No Joint Venture
The Parties expressly disclaim any intention to create a partnership, joint venture or joint enterprise. The Parties acknowledge and agree that nothing contained in this Agreement nor any acts of any party shall constitute or be deemed to constitute the parties as partners, joint ventures or principal and agent in any way or for any purpose. No Party has the authority to act for, or to assume any obligation or responsibility on behalf of the other Party. The relationship between the Parties is intended to be, and shall at all times be construed as that of licensor and licensee.

7.5 No Waiver
No condoning, excusing or overlooking by the Licensor of any default by the Licensee, at any time or times, in performing or observing any of the Licensee’s obligations hereunder, will operate as a waiver, renunciation, surrender of or otherwise affect the rights of the Licensor in respect of any continuing or subsequent default. No waiver of these rights will be inferred from anything done or omitted by the Licensor, except by an express waiver in writing.

7.6 Order of Precedence
If there is a conflict or ambiguity between this Agreement proper and any schedules thereto, the interpretation consistent with this Agreement proper (taking into consideration the statements in the recitals and headings) shall prevail and apply, notwithstanding any wording to the contrary in the applicable schedule.

7.7 Notices
The Licensor assumes no obligation or liability whatsoever for the provision of updates to the Data or the provision of notices in relation thereto to the Licensee.

Any use whatsoever of this data product shall constitute your acceptance of the terms of this agreement.

For further information please contact:

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