# **Data Exchange Standards**

Data and Content Management Division, Data and Artificial Intelligence Branch

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Alberta

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# **Standard Statement**

This standard establishes common format for data on how it is structured for sharing. This is required to ensure the clarity and the accuracy of data exchanged between Government of Alberta (GoA) applications. The standard enables consistent interpretation of data across different entities, minimizing the risk of misinterpretation or information loss.

The GoA has identified the data exchange standards for the following data types:

- <u>Character Set</u>
- <u>Country</u>
- Date, Time, and Date and Time
- Email Address
- <u>Municipality Boundary</u>
- Non-Standard Alberta Township System Legal Land Description
- Person Name
- Plan Block Lot
- Postal Address
- Postal Code
- <u>Sex</u>
- <u>Standard Alberta Township System Legal Land Description</u>
- <u>Subdivision (Province/State)</u>
- Telephone Number

# Authority

This standard is issued under the authority of the <u>Government Organization Act</u> and the <u>Records Management Regulation</u>.

Under the Records Management Regulation, Technology and Innovation has the authority to establish, maintain, and promote the enterprise policies, standards, and procedures for the creation, handling, control, organization, retention, maintenance, security, preservation, disposition, alienation, and destruction of records in the custody and/or under the control of a Government of Alberta (GoA) department or departments.

# Application

This standard applies to all departments defined under section 14 of Schedule 11 of the *Government Organization Act* and agencies, boards, and commissions as defined in schedule 1 of the <u>Freedom of Information and Protection of Privacy Regulation</u>.

Agencies, boards, and commissions that are not designated in schedule 1 of the Freedom of Information and Protection of Privacy Regulation are encouraged to align with this standard.

# **Standard Specification**

Refer to the specification provided to each data type below.

# **Character Set**

The GoA data standard for character sets shared between GoA applications and applies to exchange of information gathered by GoA applications.

| Character Set |   |
|---------------|---|
| Description   | Universal character set that represents every character in the Unicode Character Set (UCS). |
| Format        | UTF-8   |

Unicode Transformation Format 8-bit is a variable-width encoding that can represent every character in the Unicode character set.

UTF-8 has the characteristic of preserving the full US-ASCII range, providing compatibility with file systems, parsers, and software that rely on US-ASCII value but are transparent to other values.

UTF-8 characters from the U+0000.U+10FFFF range (the UTF-16 accessible range) are encoded using sequences of 1 to 4 octets.

UTF-8 has a one-octet encoding unit and encodes characters as a varying number of octets, where the number of octets and the value of each depend on the integer value assigned to the character. The encoding form characteristics are described in RFC 3629.

## Resources

- UTF-8: http://www.utf-8.com/
- <u>RFC 3629</u> UTF-8 A transformation format of ISO 10646
- <u>ISO/IEC 10646:2020</u> Information Technology Universal Coded Character Set (UCS)

# Country

The GoA data standard for a country identified in an address, shared between GoA applications. This standard defines the country code and applies to the exchange of the country information. It is also recommended for storage of a country code.

The GoA country standard follows the Data Exchange Standard – Character Set (UTF-8) and aligns with the <u>ISO 3166-2:2020</u> alpha-2 code. ISO 3166-2:2020 is the international standard for country codes and codes for their subdivisions.

| Country      |  |  |  |  |
|--------------|--|--|--|--|
| Description  | The code of the  | The code of the country in an address.   |  |  |
| Format       | C2<br>Examples:<br>• CA = Canada<br>• US = United States<br>• AU = Australia |  |  |  |
| Country Code | C2   | Two-letter country codes are defined by the international standard ISO 3166-1 alpha-2. |  |  |

#### Resource

Country Codes - ISO 3166

# Date, Time, and Date and Time

This date, time, and date and time data standard aligns with the "Date and time format - <u>ISO</u> <u>8601</u>" standard and follows the Data Exchange Standard – Character Set (UTF-8).

ISO 8601 describes an internationally accepted way to represent dates and times using numbers. BCE (Before the Common Era) is not included in this standard. The following sections illustrate the recommended formatting for:

- Date
- Time
- Date and Time

| Date        |             |   |  |
|-------------|-------------|---|--|
| Description | A date at w | hich an event occurs.   |  |
| Format      | YYYY-MM-    | DD  |  |
| үүүү        | N4          | <b>N4</b> The year in which the event occurs. It is a four-digit number from 0000 to 9999, representing a Gregorian calendar year.                      |  |
| мм          | N2          | The month in which the event occurs. It is a two-digit number from 01 to 12, representing a Gregorian calendar month, where leading zeros are required. |  |
| DD          | N2          | The day in which the event occurs. It is a two-digit number from 01 to 31, representing a Gregorian calendar day, where leading zeros are required.     |  |

| Time          |  |   |   |  |
|---------------|--|---|---|--|
| Description   | The                                      | The time at which an event occurs.      |   |  |
| Format        | hh:                                      | mm:ssZł                                 | nh:mm   |  |
| hh            | N2                                       |   | The hour in which the event occurs. It is a two-digit number from 00 to 23, where leading zeros are required.                           |  |
| mm            | N2                                       |   | The minute in which the event occurs. It is a two-digit number from 00 to 59, where leading zeros are required.                         |  |
| SS            | N2                                       |   | The second in which the event occurs. It is a two-digit number from 00 to 59, where leading zeros are required.                         |  |
| z             | C1                                       |   | The time zone indicator where a plus (+) or minus (-) indicates<br>whether the time is ahead of the Coordinated Universal Time<br>(UTC) |  |
| hh            | N2                                       |   | The time offset in hours. It is a two-digit number from 00 to 23, where leading zeros are required.                                     |  |
| mm            | N2                                       |   | The time offset in minutes. It is a two-digit number from 00 to 23, where leading zeros are required.                                   |  |
| Date and Time |  |   |   |  |
| Description   | The actual date and time an event occur. |   | tual date and time an event occur.  |  |
| Format        |  | YYYY-MM-DD hh:mm:ssZhh:mm               |   |  |
| YYYY-MM-DD    |  | Refer to the date format specification. |   |  |
| hh:mm:ssZhh:n | nm                                       | Refer to the time format specification. |   |  |

#### Resource

• Date and time format - ISO 8601- 1:2019

# **Email Address**

The GoA data standard for an e-mail address shared between GoA applications. This standard defines the required components of an email address and applies to the exchange of the email address information. It is also recommended for storage and the display of an email address. This standard does not apply to GoA user account naming (i.e. government email address; @gov.ab.ca or @alberta.ca, etc.).

The GoA email address standard aligns with the <u>RFC 5322</u>, Internet Message Format, Section 3.4.1 Addr-Spec Specification.

| E-mail Address |                                |  |
|----------------|--------------------------------|--|
| Description    | The standard for               | ormat for an email address.  |
| Format         | C254<br>local-part@domain      |  |
| least next     | C4 C64                         | The local-part identifies the name of a particular mailbox.                                    |
| юсаі-рап       | local-part C1-C64              | The local part of the email address may be case-sensitive.                                     |
| @              | C1                             | Must contain at-sign (@) to separate the local-part from the domain name.                      |
| domain         | Max. Length<br>=<br>C254 minus | The domain identifies the internet address. The domain (after the @ sign) is case insensitive. |
|                | ("local-part"<br>plus "@")     | The maximum length of the domain name is dependent on the length of the local-part plus 1.     |
|                |                                | <ul> <li>E.g.: Maximum Domain Length = C254 minus<br/>("local-part" plus "@")</li> </ul>       |

#### Resources

- <u>RFC 5322</u>, Internet Message Format
- <u>RFC 3696</u>, Section 3, Local-part Length restrictions
- <u>RFC 5321</u>, Simple Mail Transfer Protocol, Section 2.3.5 Domain Names
- <u>RFC 1034</u>, Domain Names Concepts and Facilities, Section 3.1, Domain Name Length restrictions
- <u>RFC 1035</u>, Domain Names Implementation and Specification
- RFC 2181, Clarifications to the DNS Specification
- <u>RFC 3696</u>, Application Techniques for Checking and Transforming of Names
- RFC 4343, Domain Name System (DNS) Case Insensitivity Clarification
- Errata <u>ID 1690</u>
- Email Convention Standard Government of Alberta

# **Municipality Boundary**

The GoA data standard for a Municipality Boundary shared between GoA applications, which defines its components and applies to the exchange of Municipality Boundary information.

This standard follows the <u>Data Exchange Standard – Character Set (UTF-8)</u>. The Municipality Boundaries are determined by the respective provincial government entity.

The GoA's definition of a Municipality Boundary relates to a geographic boundary that may be larger than, and include, one or more city, town, hamlet, or village.

| Municipality Bo               | Municipality Boundary  |   |  |
|-------------------------------|--|---|--|
| Description                   | The name of a city, town, hamlet, village, or other recognized municipal area. |   |  |
| Municipality<br>Boundary*     | C64  | <ul> <li>The name of a municipality boundary.</li> <li>Abbreviations and valid alternates are allowed, but municipality boundaries cannot be translated (i.e. from English to French).</li> <li>The following characters are allowed in this field: <ul> <li>upper and lower case letters</li> <li>letter-accent combinations such as é, è, ê, ë, É, É, É, Ë numbers</li> <li>numbers between 0 to 9</li> <li>special characters , . '- () # / and space</li> </ul> </li> </ul> |  |
| Municipality<br>Boundary Type | C70  | <ul> <li>The type of municipality boundary.</li> <li>The following characters are allowed in this field: <ul> <li>upper and lower case letters</li> <li>letter-accent combinations such as é, è, ê, ë, É, È, Ê, Ë numbers</li> <li>special character &amp;</li> </ul> </li> </ul>   |  |

\*Not all Municipality Boundary names are used in postal addresses. Applications exchanging the Municipality Boundary data value for postal address or mailing address purposes will be required to conform to the municipality field length defined in the <u>Data Exchange Standard –</u> <u>Postal Address standard</u>.

The Data Exchange Standard – Postal Address standard follows Canada Post's definition of a municipality. Please note there is difference in the defined field length for Municipality between the Postal Address and Municipality Boundary data exchange standards.

Please refer to the <u>Alberta Municipal Boundary Codes</u> to determine which Municipal Boundaries can be used as part of a mailing address.

#### Resources

- Types of Municipal Boundaries in Alberta
- Canadian Municipality Boundary Reference.

# Non-Standard Alberta Township System Legal Land Description

The standard for a Non-Standard Alberta Township System Legal Land Description shared between GoA applications. This standard defines the required components and applies to the exchange of the Non-Standard Alberta Township System information.

The Alberta Township System land description became effective in 1870 when the Dominion government defined the Township system. The Non-Standard Alberta Township System Legal Land Description is used when the Legal Land Description was defined prior to the Township system.

A separate standard has been defined for a <u>Standard Alberta Township System Legal Land</u> <u>Description</u>.

The different address components between a Standard and Non-Standard Alberta Township System legal address description are as follows:

| Standard<br>Alberta Township System | Non-Standard<br>Alberta Township System |
|-------------------------------------|---|
| Meridian                            | Meridian                                |
| Range                               | Range                                   |
| Township                            | Township                                |
| Section                             | Survey Lot Number                       |
| Quarter Section                     | Survey Type                             |
| Legal Subdivision                   |   |

The Non-Standard Alberta Township System Legal Land Description standard follows the <u>Data</u> <u>Exchange Standard – Character Set (UTF-8)</u>.

| Non-Standard Alberta Township System Legal Land Description |   |  |  |
|---|---|--|--|
| Description   | Non-Standard Legal Land Description used for land which has not been subdivided in a city, town, village, or acreage subdivision.                 |  |  |
| Format  | Meridian;Ra   | ange;Township;SurveyLotNumber;SurveyLotType  |  |
|   |   | The Non-Standard Alberta Township System Legal Land Description is exchanged as one string.      |  |
|   | Each string must contain at a minimum the mandatory (bolded) fields identified for a Non-Standard Alberta Township System Legal Land Description. |  |  |
| Meridian  | N1  | Mandatory.   |  |
|   |   | One of three north/south lines used for longitudinal orientation. West of the 4th, 5th, or 6th . |  |
|   |   | A single digit, e.g. "4", "5", or "6".   |  |

| Range           | N2 | Mandatory.  |
|-----------------|----|---|
|                 |    | A vertical column which falls between identified meridians. |
|                 |    | Up to two digit number range between 1 to 30.               |
| Township        | N3 | Mandatory.  |
|                 |    | A horizontal row which crosses both Meridians and Ranges.   |
|                 |    | Up to three digit number range between 1 to 126.            |
| SurveyLotNumber | C2 | Mandatory.  |
|                 |    | The survey lot number.                                      |
|                 |    | Two character value using:                                  |
|                 |    | numbers from 0 to 9   |
| Survey of Type  | C2 | capital letters A to Z                                      |
| SurveyLotType   | 62 | Optional.   |
|                 |    | The survey lot type.  |
|                 |    | Up to two character value using capital letters A to Z.     |
|                 |    | Type Values   |
|                 |    | Value Description   |
|                 |    | HB Hudson Bay Reserves                                      |
|                 |    | RL River Lots   |
|                 |    | SL Settlement Lots  |
|                 |    | OT Road Allowances  |

## Resource

An Introduction to Alberta Land Titles

# **Person Name**

The GoA data standard for each portion of a person's name (first, middle, last, preferred, etc.) shared between GoA applications. This standard defines a person's name and applies to the exchange of a person's name information. It is also recommended for storage and the display of a person's name.

| Name        |   |   |
|-------------|---|---|
| Description | The name (first, middle, last, preferred, other, etc.) of a person. |   |
| Format      | C60   |   |
| Name        | C60   | A maximum of 60 characters for each portion of a person's name (first, middle, last, preferred, other, etc.). |

Permitted Characters

- Upper and lower case letters
- Letter-accent combinations

| A/a                             | C/c | E/e                      | l/i                      | N/n | O/o                             | U/u                      | Y/y |
|---------------------------------|-----|--------------------------|--------------------------|-----|---------------------------------|--------------------------|-----|
| Á/á<br>À/à<br>Â/â<br>Ä/ä<br>Ã/ã | Ç/ç | É/é<br>È/è<br>Ê/ê<br>Ë/ë | Í/í<br>Ì/ì<br>Î/î<br>Ï/ï | Ñ/ñ | Ó/ó<br>Ò/ò<br>Ô/ô<br>Ö/ö<br>Õ/õ | Ú/ú<br>Ù/ù<br>Û/û<br>Ü/ü | Ý/ý |

• Special characters; period (.), apostrophe ('), hyphen (-) and a space

Non-Permitted Characters

- Numbers.
- The first character of a name cannot be a period, apostrophe, hyphen or space.
- The last character of a name cannot be a space or hyphen.

Name Guidelines

- Spell out numbers when used as part of a name or use roman numerals (e.g. third, seventh, II, IV).
- A single letter can be a name.
- Use a space to separate multiple names e.g. Mary Anne.
- Only use a hyphen when it is part of a given name e.g. Mary-Anne.
- Cannot contain numbers, non-letter characters, and/or profanity.

#### Resources

- Alberta Vital Statistics Name Rules
- Person Name Prefix
- Person Name Suffix
- Person Name Designation

# Plan Block Lot

The GoA data standard for a Plan Block Lot legal land description shared between GoA applications. This standard defines the required components of a Plan Block Lot legal land description and applies to the exchange of the Plan Block Lot information.

The Plan Block Lot legal land description standard follows the <u>Data Exchange Standard –</u> <u>Character Set standard (UTF-8)</u>.

| Plan, Block, Lot |   |   |  |  |
|------------------|---|---|--|--|
| Description      | Legal land description used for land which has been subdivided in a city, town, village or acreage subdivision.   |   |  |  |
| Format           | Plan;Block;Lot  |   |  |  |
|                  | Plan;Block;   | Lot   |  |  |
|                  | <ul> <li>The Plan Block Lot legal land description is exchanged as one string.</li> <li>At a minimum each string must contain the plan number and either the block number or lot number.</li> <li>The full Plan-Block-Lot string contains the plan number, block number, and the lot number.</li> </ul> |   |  |  |
| Plan Number      | C7  | Mandatory.                                  |  |  |
|                  |   | A specific Plan.                            |  |  |
|                  |   | Up to seven character value using:          |  |  |
|                  |   | numbers from 0 to 9                         |  |  |
|                  |   | <ul> <li>capital letters A to Z</li> </ul>  |  |  |
| Block Number     | C4  | Block/Unit/Parcel identifier within a Plan. |  |  |
|                  |   | Up to four character value using:           |  |  |
|                  |   | numbers from 0 to 9                         |  |  |
|                  |   | capital letters A to Z                      |  |  |
| Lot Number       | C6  | Lot identifier within a Plan/Block.         |  |  |
|                  |   | Up to six character value using:            |  |  |
|                  |   | numbers from 0 to 9                         |  |  |
|                  |   | capital letters A to Z                      |  |  |

#### Resource

An Introduction to Alberta Land Titles

# **Postal Address**

The GoA data standard for a postal address shared between GoA applications. This standard defines the required components of a postal address and applies to the exchange of postal address information.

The GoA Postal Address standard follows the <u>Data Exchange Standard – Character Set (UTF-8)</u> and the <u>Canada Post Addressing Guidelines</u> that addresses requirements to ensure mail is delivered.

The Canada Post Addressing Guide specifies:

- a maximum of 6 address lines in one address block; and
- a restriction of 40 characters per line, excluding spaces.
  - E.g. 10-123 Main St NW, consists of 14 characters.

| Postal Addres       | Postal Address   |  |  |  |  |
|---------------------|--|--|--|--|--|
| Description         | Address line contains the primary address number, pre directional<br>information, street name, suffix, post directional information, secondary<br>address identifier and/or secondary address.<br>The address line can contain information for a civic, rural, or postal box<br>address. |  |  |  |  |
| Format              | Up to six A  | ddress Lines   |  |  |  |
| Address Line<br>1-6 | C60  | <ul> <li>A portion of an individual's mailing address which identifies a specific location within a municipality.</li> <li>Canada Post's Addressing Guidelines enforces a restriction of 40 characters, excluding spaces per line. The GoA standard will allow a maximum of 60 characters for address entry to allow for spaces per line.</li> <li>Municipality, Province or Territory, and the Postal Code should all appear on the same line. The Postal Code may be placed on a line by itself if there is insufficient space to accommodate all three on one line.</li> <li>Street name is the official name recognized by each municipality and cannot be translated (i.e. from English to French)</li> <li>Postal Box Numbers should always be placed on the line just above the municipality, province, and postal code. The following characters are allowed in this field: <ul> <li>upper and lower case letters</li> <li>letter-accent combinations such as é, è, ê, ë, É, É, É numbers</li> <li>numbers between 0 to 9</li> <li>special characters are allowed, except the # or the French equivalent n°</li> </ul> </li> </ul> |  |  |  |
| Municipality*       | C30  | The name of a city, town, hamlet, or village.         Abbreviations and valid alternates are allowed but cannot be translated (i.e. from English to French).   |  |  |  |

| Subdivision<br>Code | C3  | A three-letter code identifying the applicable province, state, or territory.  |
|---------------------|-----|--|
| Postal Code         | C15 | <ul> <li>A code assigned to one or more addresses, required for the mechanized processing of mail.</li> <li>The following characters are allowed in this field: <ul> <li>upper and lower case letters</li> <li>numbers between 0 to 9</li> </ul> </li> </ul> |
|                     |     | <ul> <li>space and hyphen (-)</li> </ul>   |
| Country             | C2  | The international standard two-letter country code.  |

\*Municipality Canada Post's definition of a Municipality does not align with the Municipality Boundary standard.

- Canada Post defines a municipality as a city, town, hamlet, or village.
- Municipality Boundaries are determined by the respective provincial government entity; not Canada Post. The Government of Alberta's definition of a Municipality Boundary relates to a geographic boundary that may be larger than, and include, one or more city, town, hamlet, or village.

Applications exchanging the Municipality data value for a postal address, or a mailing address purpose will be required to conform to the municipality field length defined in this standard, which follows Canada Post's definition of a municipality.

Please note there is difference in the defined field length for municipality between the Postal Address and <u>Municipality Boundary</u> data exchange standards.

#### Resource

• Canada Post – Addressing Guidelines

# **Postal Code**

The GoA data standard for a postal code identified in an address, shared between GoA applications. This standard defines the required components of a postal code information and applies to the exchange of the postal code information. It is also recommended for storage and the display of a postal code.

The GoA postal code standard follows the <u>Data Exchange Standard – Character Set (UTF-8)</u> with the exceptions noted below and aligns with the <u>Universal Postal Union</u> (UPU).

| Postal Code |  |
|-------------|--|
| Description | A series of letters and/or numbers used as part of a postal address to expedite the processing of machine-sorted mail. |
| Format      | C15<br>Acceptable Formats:<br>• Canada: X9X 9X9<br>• United States: 99999, 99999-9999<br>• International: C15          |

| Postal Code | C15 | A maximum of 15 characters.   |
|-------------|-----|---|
|             |     | <ul> <li>The following characters are allowed in this field:</li> <li>upper and lower case letters</li> <li>numbers 0 to 9</li> <li>space and hyphen (-)</li> </ul> |

#### Canada

A seven alphanumeric code in the format of "X9X 9X9", where "X" represents an alphabetic character and "9" represents a numeric character. The first three characters are separated from the last three characters by a space.

#### **United States of America**

Up to ten character code in the format of 99999-9999. A minimum of 5 characters must be entered. ZIP codes may be either a five or nine digit code. If the nine-digit code is used it must be separated by a hyphen between the fifth and sixth digits. (See <u>United States Postal</u> Addressing Standards)

#### International

A maximum 15 character code. Some countries do not have postal codes. International postal codes use various formats. Examples of postal code formats where a postal code is required:

- Australia 9999
- Bermuda XX 99
- Iran 9999999999
- Latvia XX-9999
- Poland 99-999
- Sweden 999 99

#### Resources

- <u>Canada Post</u> Addressing Guidelines
- Universal Postal Union

Addressing Knowledge Centre – General Addressing Issues. Not all countries have or use a postcode system. The General Addressing Issues document identifies which countries use a postcode system and countries that do not

## Sex

The GoA sex data exchange standard aligns with the information collected under the <u>Vital</u> <u>Statistics Act</u>, which allows the government to provide for the legal registration of all Alberta births, stillbirths, deaths, marriages, adoptions and changes of name. Sex is collected as per the Vital Statistics Act, producing legal registration documents that are used for purposes including verification of physical identity, and confirmation of eligibility for government programs and services. This standard also follows the <u>Data Exchange Standard – Character Set (UTF-8)</u>.

| Sex         |   |                      |
|-------------|---|----------------------|
| Description | Sex refers to the biological and is associated with physical and<br>physiological characteristics that define men, women, and intersex<br>persons. A person's sex is most often designated by a medical<br>assessment at the moment of birth. This is also referred to as birth-<br>assigned sex. |                      |
| Format      | C1  |                      |
| Sex         | C1  | One character value. |

#### Sex Values

| Value | Display       | Description  |
|-------|---------------|--|
| F     | Female        | A person with female reproductive/ sexual anatomy. Other features to describe female distinctions may include chromosomes, gene expression, hormone levels and function.   |
| М     | Male          | A person with male reproductive/ sexual anatomy. Other features to describe male distinctions may include chromosomes, gene expression, hormone levels and function.   |
| U     | Unknown       | Used when an individual was not asked or did not provide their sex.  |
| 0     | Other         | Used when an individual may be intersex (formerly known as<br>hermaphrodite). This is a person born with a combination of<br>male and female biological characteristics, such as<br>chromosomes or genitals, that can make it difficult for doctors<br>to assign their sex as distinctly male or female at birth |
| I     | Indeterminate | Used only in the event of a stillbirth where the sex cannot be differentiated.   |

#### Resources

- Vital Statistics Act
- Statistics Canada

# Standard Alberta Township System Legal Land Description

The GoA data standard for a Standard Alberta Township System Legal Land Description shared between GoA applications.

This standard defines the required components and applies to the exchange of the Standard Alberta Township System information. A separate standard has been defined for a <u>Non-Standard Alberta Township System Legal Land Description</u>.

Refer to the table under Non-Standard Alberta Township System Legal Land Description for the different address components between a Standard and Non-Standard Alberta Township System legal address description.

The Alberta Township System land description standard follows the <u>Data Exchange Standard –</u> <u>Character Set (UTF-8)</u>.

| Standard Alberta Township System Legal Land Description |   |  |  |  |
|---|---|--|--|--|
| Description   | Legal Land Description used for land which has not been subdivided in a city, town, village, or acreage subdivision.  |  |  |  |
| Format  | Meridian;Range;Township;Section;QuarterSection;LegalSubdivision   |  |  |  |
|   | The Alberta Township System Legal Land Description is exchanged as<br>one string. Each string must contain at a minimum the mandatory<br>(bolded) fields identified for an Alberta Township System Legal Land<br>Description. |  |  |  |
| Meridian  | N1  | Mandatory.   |  |  |
|   |   | One of three north/south lines used for longitudinal orientation. West of the 4th, 5th, or 6th. A single digit, e.g. "4", "5", or "6".   |  |  |
| Range   | N2  | Mandatory.   |  |  |
|   |   | A vertical column which falls between identified meridians.<br>Up to two digit number range between 1 to 30.   |  |  |
| Township  | N3  | Mandatory.   |  |  |
|   |   | A horizontal row which crosses both meridians and ranges.<br>Up to three digit number range between 1 to 126.  |  |  |
| Section   | N2  | Mandatory.   |  |  |
|   |   | One thirty-sixth of a township. Up to two digit number range between 1 to 36.  |  |  |
| QuarterSection  | C2  | Optional.  |  |  |
|   |   | One quarter of a section. Identifies the direction of the quarter section, e.g. "N", "S, "E", "W", "NE", "NW", "SE", "and SW". Up to two character value using capital letters A to Z. |  |  |
| LegalSubdivision  | N2  | Optional.  |  |  |
|   |   | One sixteenth of a section. Up to two digit number range between 1 to 16.  |  |  |

## Resource

An Introduction to Alberta Land Titles

# Subdivision (Province/State)

The GoA data standard for a subdivision identified in an address, shared between GoA applications. The subdivision is defined as the province, territory, state, parish, etc. of an address. This standard defines the required components of a subdivision and applies to the exchange of the subdivision information.

<u>ISO 3166-2:2020</u> establishes codes for the names of the principal subdivisions (e.g. provinces, territories, states, etc.) of all countries coded in <u>ISO 3166-1:2020</u>.

- The country code is based on the two-letter code element from ISO 3166-1:2020.
- The subdivision code is based on the letter code element from ISO 3166-2:2020.

The exchange of subdivision information must include the country code as defined in the <u>Data</u> <u>Exchange Standard – Country</u> standard. The ISO 3166-2:2020 subdivision codes specification is not unique unless combined with the ISO 3166-1:2020 country code.

The GoA does not require the country and subdivision data to be exchanged in the ISO recommended format of CC-CCC (Country\_Code-Subdivision). The Country and Subdivision data can be exchanged as separate data attributes.

| Subdivision (P | Subdivision (Province/State)                        |   |  |  |
|----------------|---|---|--|--|
| Description    | The cod   | The code of a subdivision within a country.   |  |  |
| Format         | C3  | C3  |  |  |
|                | Subdivis<br>CA-AB =<br>US-AL =<br>AU-QLD<br>ID-RI = | The following are examples of combined ISOs Country Codes and<br>Subdivisions:<br>CA-AB = Canada, Alberta<br>US-AL = United States, Alabama<br>AU-QLD = Australia, Queensland<br>ID-RI = Indonesia, Riau<br>NG-RI = Nigeria, Rivers |  |  |
| Country        | C2  | The name of the country in an address.<br>Two-letter country codes as defined by the ISO 3166-1:2020<br>alpha-2.  |  |  |
| Subdivision    | C3  | The name of the subdivision (province/state) in an address.<br>Up to three-letter subdivision (e.g. province, state, territory, parish, etc.) codes as defined by the ISO 3166-2:2020.  |  |  |

#### Resources

- ISO 3166 Country Codes
- <u>ISO 3166-2:2020</u> Country Subdivision Codes
- <u>Canada Post</u> Addressing Guidelines

# **Telephone Number**

The GoA telephone number standard aligns with the <u>ITU-T E.164 The International Public</u> <u>Telecommunication Numbering Plan</u> and follows the <u>Data Exchange Standard – Character Set</u> (UTF-8).

| Telephone Number |  |  |  |  |
|------------------|--|--|--|--|
| Description      | A telephone number at which an individual can be contacted     |  |  |  |
| Format           | Country Dial Code (N3)<br>Phone Number (N12)<br>Extension (N7) |  |  |  |

| Country Dial<br>Code | N3  | A maximum of 3 numbers. The digits indicating which<br>number must be dialed first to cause the call to be other<br>than the standard call within the North America.<br>e.g. 61 (Australia), 886 (Taiwan)  |
|----------------------|-----|--|
| Phone Number         | N12 | A maximum of 12 numbers. The digits indicating the<br>desired city or area (also known as City Code or Routing<br>Code) plus the digits of the local number.<br>Area codes within North America and are defined in the<br><u>North American Numbering Plan</u> (NANP) and in the <u>ITU</u><br><u>National Numbering Plan</u> .<br>e.g. 7803104455 |
| Extension            | N7  | This is optional. The numbers of the telephone extension. A maximum of 7 numbers or blank.   |

#### Resources

- <u>ITU-T E.164</u> The International Public Telecommunication Numbering Plan
- North American Numbering Plan (NANP)
- ITU National Numbering Plan

# Compliance

Non-compliance with this standard could result in the loss of content; breach of confidentiality; breach of privileged information; significant impact to GoA's proprietary rights; damage to GoA's reputation; exposure of Albertans to harm; and/or incurrence of unnecessary costs (including, but not limited to, inability to respond appropriately to a claim in court).

Depending on the severity of non-compliance:

- either informal or formal requests and/or follow-ups may be made by Innovation, Privacy and Policy Division, Corporate Internal Audit Services, Cybersecurity, Office of the Information and Privacy Commissioner, Office of the Auditor General and/or Public Service Commission, and
- legislated disciplinary action (i.e., *Public Service Act*) may be taken.