



# **BC Physical Address Online Geocoder REST API v2.0 Specification**

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## Introduction

The *BC Physical Address Online Geocoder REST API* lets you integrate real-time standardization, validation, and geocoding of physical addresses into your own applications. This document defines the REST API.

To simplify integration of the online geocoder into your client web application, you can use the Javascript API located at:

<http://apps.gov.bc.ca/pub/geocoder/js/geocode.js>

### **API Changes in v2.0**

1. A site can now have one or more public or related business occupants. Here is an example:

VICTORIA LAW COURTS -- 850 Burdett Ave, Victoria, BC

Resources have been added to support validating, geocoding, and finding occupants nearby but only courts of law and some hospitals have been loaded. Expect a lot more occupants in the near future. Here are some example requests:

<http://apps.gov.bc.ca/pub/geocoder/occupants/addresses.geojson?tags=courts&addressString=victoria%20law%20courts%20--%20>

<http://apps.gov.bc.ca/pub/geocoder/occupants/nearest.geojson?point=-123.7064038,48.8498537&tags=courts>

<http://apps.gov.bc.ca/pub/geocoder/occupants/near.geojson?point=-123.7064038,48.8498537&tags=courts&maxResults=3>

2. The documentation has been updated.

## Resource Overview

The Online Geocoder offers resources for validating and geocoding an address (including public and related business occupants); finding a given site, intersection, and occupant; and finding sites, intersections, and occupants near a point or within an area.



## **Geocoder Base URL**

The current baseUrl for the online geocoder is:

<http://apps.gov.bc.ca/pub/geocoder>

The baseUrl for the online geocoder under the HTTP Secure protocol is:

<https://apps.gov.bc.ca/pub/geocoder>

## Addresses Resource

The addresses resource represents all addresses in the geocoder. A request on this resource to find a query address will return one or more matching addresses that are standardized and geocoded (i.e., given a point location on the earth).

A query address can be specified in two different ways:

1. A single address string containing all elements of an address as in:

<http://apps.gov.bc.ca/pub/geocoder/addresses.geojson?addressString=525%20superior%20st,%20victoria,%20bc>

2. A set of address elements as in:

<http://apps.gov.bc.ca/pub/geocoder/addresses.geojson?civicNumber=525&streetName=superior&streetType=st&localityName=victoria&provinceCode=BC>

This request will execute faster and may return a better match for the same address since the geocoder doesn't have to determine what each part of an address string means.

Here are some more example geocoder requests:

1. Geocode 456 Gorge Rd E, Victoria, BC

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?addressString=456%20Gorge%20Rd%20e%20victoria%20bc>

2. Geocode 7-955 13<sup>th</sup> Ave, Valemount, BC

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?addressString=7-955%2013th%20ave,%20Valemount,bc>

3. Geocode the intersection at Johnson and Government

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?addressString=johnson%20and%20government>

4. Geocode 5671 Malibu Terrace, Nanaimo, BC and return results in GEOJSON and BC Albers projection

<http://apps.gov.bc.ca/pub/geocoder/addresses.geojson?outputSRS=3005&addressString=5671%20malibu%20terrace%20nanaimo%20bc>

5. Geocode 5670 Malibu Terrace, Nanaimo and return the location along the road centreline for using in routing.

<http://apps.gov.bc.ca/pub/geocoder/addresses.kml?locationDescriptor=routingPoint&addressString=5670%20malibu%20terrace%20nanaimo%20bc>

6. Geocode 5670 Malibu Terrace, Nanaimo and return accessPoint set back four metres from the curb towards the inside of the property. Note that only accessPoints can be set back.

<http://apps.gov.bc.ca/pub/geocoder/addresses.kml?locationDescriptor=accessPoint&setBack=4&addressString=5670%20malibu%20terrace%20nanaimo%20bc>

7. Geocode 5671 Malibu Terrace, Nanaimo, BC without interpolation. In other words, if the geocoder doesn't have a site with a civic number of 5671, it will fail instead of looking for an address range that contains 5671.

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?interpolation=none&addressString=5671%20malibu%20terrace%20nanaimo%20bc>

8. Geocode 200 Gorge Rd W, Saanich, BC and limit results to Victoria. It will return 200 Gorge Rd E, Victoria, BC since Gorge Rd E is in Victoria.

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?localities=victoria&addressString=200%20gorge%20rd%20w%20saanich%20bc>

9. Geocode 1434 Graham St, Kelowna, BC and limit results to ten matches within the greater Kelowna area.

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?&bbox=-119.8965522070019%2C49.70546831817266%2C-119.2157397287486%2C50.06954472056336&addressString=1434%20Graham%20St%2C%20Kelowna%2C%20BC&maxResults=10>

10. Geocode 1434 Graham St, Kelowna, BC and limit results to ten street-level matches.

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?&addressString=1434%20Graham%20St%2C%20Kelowna%2C%20BC%20&matchPrecision=street&maxResults=10>

11. Extrapolate the known location of 12 Bushby St from a parcelPoint to get an accessPoint

<http://apps.gov.bc.ca/pub/geocoder/addresses.xhtml?setBack=0&minScore=1&maxResults=1&maxDistance=0&interpolation=adaptive&echo=true&outputSRS=4326&addressString=12%20bushby%20st%20victoria%20bc&locationDescriptor=any&extrapolate=true&parcelPoint=-123.349174,2048.407134>

12. Find the nearest courthouse to a given point

<http://apps.gov.bc.ca/pub/geocoder/occupants/nearest.geojson?point=-123.7064038,48.8498537&tags=courts>

## ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.



- GET

## ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({} ) indicate template parameters.

```
{baseUrl}/addresses[.{outputFormat}]
```

geocodes a query address if the specified civic number is known to the geocoder or is within a known address range.

## ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## ***Query String Parameters***

The following query string parameters are supported:

<b>Parameter</b>	<b>Type</b>	<b>Required</b>	<b>Default</b>	<b>Description</b>
addressString	String	No but if absent at least streetName or localityName is required		Civic address or intersection address in Single-line Address Format or a recognized alternative format (see last two sections of this document).

unitDesignator	String	No		The type of unit within a house or building. Valid values are APT, BLDG, BSMT, FLR, LOBBY, LWR, PAD, PH, REAR, RM, SIDE, SITE, SUITE, TH, UNIT, and UPPR. The geocoder will try to match variations of these values on input (e.g., UPR) and output the standardized value (e.g., UPPR).
unitNumber	String	No		The number of the unit, suite, or apartment within a house or building.
unitNumberSuffix	String	No		A letter that follows the unit number as in Unit 1A or Suite 302B.
civicNumber	String	No		The official number assigned to a site by a municipality.
civicNumberSuffix	String	No		A letter or fraction that follows the civic number. There should be no space between a civic number and a letter (e.g., Unit 1A) and one space between a civic number and a fraction (e.g., Suite 3 ½)
streetName	String	No but if absent and localityName is absent too, addressString is required		The official name of the street recognized by an address authority (e.g., Douglas in 1175 Douglas Street). A streetName that starts with a directional is not abbreviated (e.g., North Park, not N Park).
streetType	String	No		The type of street as assigned by an address authority (e.g., the ST in 1175 DOUGLAS ST) and is abbreviated if such an abbreviation exists. The set of all street types is defined by the provincial Integrated Transportation Network program.
streetDirection	String			The abbreviated compass direction as defined by Canada Post and B.C. civic addressing authorities. The complete list is C, E, N, NE, NW, SE, SW, and W. All street directions except C are defined by Canada Post.
streetQualifier	String	No		The qualifier of a street name (e.g., the Bridge in Johnson St Bridge)
localityName	String	No but if absent and streetName is absent too, addressString is required		The name of the municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, or natural feature the site is located in. Since this is a physical address geocoder, not a mailing address geocoder, the locality of a civic address is that defined by the civic address authority, not Canada Post. A locality name that starts with a directional is not abbreviated (e.g., North Vancouver, not N Vancouver). Spelling of localities that are place names or natural feature names MUST match that published by the BC Geographical Names Information System.

provinceCode	String	No	BC	The ISO 3166-2 Sub-Country Code for British Columbia, which is BC.
minScore	integer	No	0	Min score a match must have before it is included in the results. Scores range between 0 and 100.
maxResults	integer	No	1	Maximum number of matched addresses to return for each input address
outputSRS	integer	No	4326	EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:  <b>3005:</b> BC Albers  <b>4326:</b> WGS 84 (default)  <b>26907 26911:</b> NAD83/UTM Zones 7N through 11N  <b>32607 32611:</b> WGS84/UTM Zones 7N through 11N  <b>26707 26711:</b> NAD27/UTM Zones 7N through 11N
setBack	integer	Real	0	The distance to move the accessPoint away from the curb (in meters) and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.
echo	boolean	No	true	Include unmatched address details such as site name in results.
interpolation	String	No	adaptive	Location interpolation method (adaptive, linear, none)
locationDescriptor	String	No	any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
localities	String	No		A comma separated list of locality names that matched addresses must belong to (e.g., &localities=Nanaimo only returns addresses in Nanaimo)
notLocalities	String	No		A comma separated list of locality names that matched addresses must not belong to (e.g., &notLocalities=View Royal,Saanich excludes addresses in View Royal and Saanich)

bbox	String	No		A bounding box that filters out all addresses outside its limits; it is a comma separated list of coordinate bounds in the order: min lon/easting, min lat/northing, max lon/easting, max lat/northing. Here is an example:  &bbox=-126.0792945083648,49.76287332290923,-126.0163386310997,49.79077056256354)
centre	String	Yes if maxDistance is provided; no otherwise		The centre point of a bounding circle that filters out all addresses outside its limits; it is a comma separate list of lon/easting and lat/northing coordinates (e.g.,&centre=-124.0165926,49.2296251)
maxDistance	Real	Yes if centre is provided; no otherwise		Radius of a bounding circle (in metres) that filters out all addresses outside its limits (e.g., &distance=2000); distance and centre must both be specified in a given request
matchPrecision	String	No		A comma separated list of matchPrecisions that filters out all addresses that don't match at the specified levels (e.g., &matchPrecision=street,locality)
matchPrecisionNot	String	No		A comma separated list of matchPrecisions that filters out all addresses that do match at the specified levels (e.g., matchPrecisionNot=street,locality)
parcelPoint	String	Yes if extrapolate set to true; no otherwise		A point known to be inside the parcel containing a given address; point must be x,y format as shown in the following example:  parcePoint=-123.349174,2048.407134  x and y must be in the projection you specify in the outputSRS parameter which is 4326 by default
extrapolate	Boolean	No	False	If true, uses supplied parcelPoint to derive an appropriate accessPoint. If extrapolate=true and no parcelPoint is provided or if extrapolate=false and a parcelPoint is provided, no extrapolation is performed and locationDescriptor is used to determine type of point to return.

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the

	problem persists, contact the support desk with exact details of the parameters you were using.
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## ***HTTP Responses***

This resource will return a document in the requested format and spatial reference system. Documents in formats that support a header record (e.g., XHTML, KML, GEOJSON, GEOJSONP, GML) will contain a single About Query record describing the query and its execution, and one or more site address or intersection address records. Documents in formats that don't support a header record (e.g., CSV, SHPZ), will contain one or more site/intersection address records.

Here we define the attributes of the different record types that are written to response document. For the precise structure of a given document format, geocode an address using the online geocoder in the desired format and examine the result.

### ***About Query Record***

<b>About Query Attribute</b>	<b>Type</b>	<b>Description</b>
searchTimestamp	DateTime	Date/time search was completed (in format yyyy-mm-dd hh:mm:ss.sss)
executionTime	Real	Query execution time in milliseconds
version	String	Software version of the REST Web Service
minScore	integer	The minimum acceptable score of returned matches. Any match below the minimum is not returned. Score ranges from 0-100.
maxResults	integer	The maximum number of results returned by the geocoder or other query.
echo	Boolean	If true, unmatched address elements are put into siteName attribute of site address; otherwise, they do not appear in output at all.
interpolation	String	Interpolation method used to determine location; adaptive, linear, none
outputSRS	integer	EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:  <b>3005:</b> BC Albers  <b>4326:</b> WGS 84 (default)  <b>26907 26911:</b> NAD83/UTM Zones 7N through 11N  <b>32607 32611:</b> WGS84/UTM Zones 7N through 11N  <b>26707 26711:</b> NAD27/UTM Zones 7N through 11N
setBack	Real	The distance to move the accessPoint away from the curb (in meters) and towards the interior of the parcel.
locationDescriptor	String	Type of point requested. Allowed values are accessPoint, any, frontDoorPoint, parcelPoint, rooftopPoint, and routingPoint.

### **Site Address Record**

<b>Site Address Attribute</b>	<b>Type</b>	<b>Description</b>
fullAddress	String	Civic or non-civic address in Single-Line Address Format (see last section of this document)
score	integer	Match score (between 0 and 100)
matchPrecision	String	<p>The level of precision of an address match. Here are all civic address levels from the most precise to least precise:</p> <ul style="list-style-type: none"> <li>• <b>civicNumber</b> – the civic number matched</li> <li>• <b>block</b> – the civic number falls within a known block range</li> <li>• <b>street</b> – the street name, street direction, and street type matched</li> <li>• <b>locality</b> – the locality matched</li> <li>• <b>province</b> – no match</li> </ul> <p>Here are all intersection address levels:</p> <ul style="list-style-type: none"> <li>• <b>intersection</b></li> <li>• <b>locality</b></li> <li>• <b>province</b></li> </ul>
precisionPoints	integer	Points given for matchPrecision
faults	String	The list of faults found with a given address match. Each fault contains the nature of the fault, the address property affected, and the fault penalty. See Faults table below for a list of all faults.
siteName	String	A string containing the name of the building, facility, or institution (e.g., Duck Building, Casa Del Mar, Crystal Garden, Bluebird House). A business name should only be used if it is permanently affixed to the site and the site has no other, more generic name. If a site is a unit within a complex, it may have a sitename in addition to a unitNumber and unitSuffix. siteName is optional for civic addresses but required for non-civic addresses.

unitDesignator	String	The type of unit within a house or building. Valid values are APT, BLDG, BSMT, FLR, LOBBY, LWR, PAD, PH, REAR, RM, SIDE, SITE, SUITE, TH, UNIT, and UPPR. The geocoder will try to match variations of these values on input (e.g., UPR) and output the standardized value (e.g., UPPR).
unitNumber	String	The number of the unit, suite, or apartment within a house or building.
unitNumberSuffix	String	A letter that follows the unit number as in Unit 1A or Suite 302B.
civicNumber	String	The official number assigned to a site on a street by an address authority.
civicNumberSuffix	String	A letter or fraction that follows the civic number. There should be no space between a civic number and a letter (e.g., Unit 1A) and one space between a civic number and a fraction (e.g., Suite 3 ½)
streetName	String	The official name of the street recognized by a municipality (e.g., Douglas in 1175 Douglas Street). A streetName that starts with a directional is not abbreviated (e.g., North Park, not N Park).
streetType	String	The type of street as assigned by a municipality (e.g., the ST in 1175 DOUGLAS ST) and is abbreviated if such an abbreviation exists. The set of all street types is defined by the provincial Integrated Transportation Network program.
isStreetTypePrefix	Boolean	True if streetType should appear before streetName in fullAddress; false if streetType should appear after streetName
streetDirection	String	The abbreviated compass direction as defined by Canada Post and B.C. civic addressing authorities . The complete list is C, E, N, NE, NW, S, SE, SW, and W. All street directions except C are defined by Canada Post.
isStreetDirectionPrefix	Boolean	True if streetDirection should appear before street name in fullAddress; false if streetDirection should appear after streetName
streetQualifier	String	The qualifier of a street name (e.g., the Bridge in Johnson St Bridge)



localityName	String	The name of the municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, or natural feature the site is located in. Since this standard is about geocoding, not mail delivery, the locality of a civic address is that defined by the civic address authority, not Canada Post. A locality name that starts with a directional is not abbreviated (e.g., North Vancouver, not N Vancouver). Spelling of localities that are place names or natural feature names <b>MUST</b> match that published by the BC Geographical Names Information System.
localityType	String	Can be a municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, forward sortation area, or natural feature.
provinceCode	String	The ISO 3166-2 Sub-Country Code for British Columbia, which is BC.
locationPositionalAccuracy	String	The accuracy of the coordinates representing the location of the site. <ul style="list-style-type: none"> <li>• <b>high</b> if the point position was observed or measured using GPS or survey instruments, or digitized off imagery with a resolution of 1m or better.</li> <li>• <b>medium</b> if point position was derived from parcel boundaries or from a point known to be inside a parcel.</li> <li>• <b>low</b> if point position was interpolated along a block face address range.</li> <li>• <b>coarse</b> if the point position represents an entire street, locality, or province.</li> </ul>
locationDescriptor	String	Describes the nature of the location. Values include accessPoint, frontDoorPoint, localityPoint, parcelPoint, provincePoint, rooftopPoint, routingPoint, streetPoint
siteID	string	A unique identifier assigned to every site in B.C. They are currently not immutable. Poor matches and interpolated results don't return a siteID.
siteURL	string	The unique URL that a given site is associated with. Returns a site address.
blockID	String	ID of ITN road segment that site appears on

fullSiteDescriptor	String	That portion of addressString that precedes the civic number (in the case of a civic address) or the locality (in the case of a non-civic address).
narrativeLocation	String	Written directions to access the site. The narrative should start at the closest known, named physical feature to the site (e.g. from Tlell, travel north on highway 16 to the big golden spruce tree on your left, hike west for about one kilometre).
accessNotes	String	Additional information that is helpful in determining the access location and any restrictions on mode of access (e.g., boat only, floatplane only).
siteStatus	String	The status of the site (active, or retired). A site is usually retired when it is destroyed or combined with another site.
siteRetireDate	Date	The date the site was retired (in yyyy-mm-dd format)
changeDate	Date	The date a site was last changed ( in yyyy-mm-dd format)
isPrimary	Boolean	true if the location is the primary (or official) access point of the associated site; false otherwise.

### ***Intersection Address Record***

<b>Intersection Address Attribute</b>	<b>Type</b>	<b>Description</b>
fullAddress	String	Intersection Address in Single-Line Address Format (see last section of this document)
intersectionName	String	The street name, type, and direction of all streets that meet at a given intersection. Here are some examples: <ul style="list-style-type: none"> <li>• Douglas St and Gorge Rd E and Hillside Ave</li> <li>• 48th Ave W and Marine Dr SW</li> </ul>
localityName	String	The name of the municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, or natural feature the site is located in. Since this standard is about geocoding, not mail delivery, the locality of a civic address is that defined by the civic address authority, not Canada Post. A locality name that starts with a directional is not abbreviated (e.g., North Vancouver, not N Vancouver). Spelling of localities that are place names or natural feature names <b>MUST</b> match that published by the BC Geographical Names Information System.
localityType	String	Can be a municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, forward sortation area, or natural feature.
provinceCode	String	The ISO 3166-2 Sub-Country Code for British Columbia, which is BC.
score	integer	Match score (between 0 and 100)
matchPrecision	String	The level of precision of an address match. Here are all the levels from the most precise to least precise: <ul style="list-style-type: none"> <li>• <b>Intersection</b> – the intersection name matched</li> <li>• <b>locality</b> – the locality matched</li> <li>• <b>province</b> – no match</li> </ul>
precisionPoints	integer	Points given for matchPrecision

faults	String	The list of faults found with a given address match. Each fault contains the nature of the fault, the address property affected, and the fault penalty.
intersectionID	String	A unique and immutable identifier assigned to the intersection.
degree	String	Degree of intersection (e.g., 3 for 3-way, 4 for 4-way etc.)

### ***SiteAndIntersection Address Record***

<b>Site/Intersection Address Attribute</b>	<b>Type</b>	<b>Description</b>
fullAddress	String	Civic, non-civic address, or intersection address in Single-Line Address Format (see last section of this document)
intersectionName	String	The street name, type, and direction of all streets that meet at a given intersection. Here are some examples: <ul style="list-style-type: none"> <li>• Douglas St and Gorge Rd E and Hillside Ave</li> <li>• 48th Ave W and Marine Dr SW</li> </ul>
score	Integer	Match score (between 0 and 100)
matchPrecision	String	The level of precision of an address match. Here are all the levels from the most precise to least precise: <ul style="list-style-type: none"> <li>• <b>civicNumber</b> – the civic number matched</li> <li>• <b>block</b> – the civic number falls within a known block range</li> <li>• <b>intersection</b> - the intersection name matched</li> <li>• <b>street</b> – the street name, street direction, and street type matched</li> <li>• <b>locality</b> – the locality matched</li> <li>• <b>province</b> – no match</li> </ul>
precisionPoints	Integer	Points given for matchPrecision
faults	String	The list of faults found with a given address match. Each fault contains the nature of the fault, the address property affected, and the fault penalty.
siteName	String	A string containing the name of the building, facility, or institution (e.g., Duck Building, Casa Del Mar, Crystal Garden, Bluebird House). A business name should only be used if it is permanently affixed to the site and the site has no other, more generic name. If a site is a unit within a complex, it may have a sitename in addition to a unitNumber and unitSuffix. siteName is optional for civic addresses but required for non-civic addresses.

unitDesignator	String	The type of unit within a house or building. Valid values are APT, BLDG, BSMT, FLR, LOBBY, LWR, PAD, PH, REAR, RM, SIDE, SITE, SUITE, TH, UNIT, and UPPR. The geocoder will try to match variations of these values on input (e.g., UPR) and output the standardized value (e.g., UPPR).
unitNumber	String	The number of the unit, suite, or apartment within a house or building.
unitNumberSuffix	String	A letter that follows the unit number as in Unit 1A or Suite 302B.
civicNumber	String	The official number assigned to a site on a street by an address authority.
civicNumberSuffix	String	A letter or fraction that follows the civic number. There should be no space between a civic number and a letter (e.g., Unit 1A) and one space between a civic number and a fraction (e.g., Suite 3 ½)
streetName	String	The official name of the street recognized by a municipality (e.g., Douglas in 1175 Douglas Street). A streetName that starts with a directional is not abbreviated (e.g., North Park, not N Park).
streetType	String	The type of street as assigned by a municipality (e.g., the ST in 1175 DOUGLAS ST) and is abbreviated if such an abbreviation exists. The set of all street types is defined by the provincial Integrated Transportation Network program.
isStreetTypePrefix	Boolean	True if streetType should appear before streetName in fullAddress; false if streetType should appear after streetName
streetDirection	String	The abbreviated compass direction as defined by Canada Post and B.C. civic addressing authorities . The complete list is C, E, N, NE, NW, S, SE, SW, and W. All street directions except C are defined by Canada Post.
isStreetDirectionPrefix	Boolean	True if streetDirection should appear before street name in fullAddress; false if streetDirection should appear after streetName
streetQualifier	String	The qualifier of a street name (e.g., the Bridge in Johnson St Bridge)

localityName	String	The name of the municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, or natural feature the site is located in. Since this standard is about geocoding, not mail delivery, the locality of a civic address is that defined by the civic address authority, not Canada Post. A locality name that starts with a directional is not abbreviated (e.g., North Vancouver, not N Vancouver). Spelling of localities that are place names or natural feature names MUST match that published by the BC Geographical Names Information System.
provinceCode	String	The ISO 3166-2 Sub-Country Code for British Columbia, which is BC.
X	Number	X coordinate of location (longitude in geographic projection, easting in other projections)
Y	Number	Y coordinate of location (latitude in geographic projection, northing in other projections)
srsCode	Integer	EPSG code of the spatial reference system that x,y are stated in.
locationPositionalAccuracy	String	The accuracy of the coordinates representing the location of the site. <ul style="list-style-type: none"> <li>• <b>high</b> if the point position was observed or measured using GPS or survey instruments, or digitized off imagery with a resolution of 1m or better.</li> <li>• <b>medium</b> if the point position was derived from parcel boundaries or from a point known to be inside a parcel.</li> <li>• <b>low</b> if the point position was interpolated along a block face address range.</li> <li>• <b>coarse</b> if the point position represents an entire street, locality, or province.</li> </ul>
locationDescriptor	String	Describes the nature of the location. Values include accessPoint, frontDoorPoint, localityPoint, parcelPoint, provincePoint, rooftopPoint, routingPoint, streetPoint
siteID	String	A unique identifier assigned to every site in B.C. They are currently not immutable. Poor matches and interpolated results don't return a siteID.
blockID	String	ID of DRA road segment that site appears on

intersectionID	String	A unique and immutable identifier assigned to the intersection.
fullSiteDescriptor	String	That portion of addressString that precedes the civic number (in the case of a civic address) or the locality (in the case of a non-civic address).
narrativeLocation	String	Written directions to access the site. The narrative should start at the closest known, named physical feature to the site (e.g. from Tlell, travel north on highway 16 to the big golden spruce tree on your left, hike west for about one kilometre).
accessNotes	String	Additional information that is helpful in determining the access location and any restrictions on mode of access (e.g., boat only, floatplane only).
siteStatus	String	The status of the site (active, or retired). A site is usually retired when it is destroyed or combined with another site.
siteRetireDate	Date	The date the site was retired (in yyyy-mm-dd format)
changeDate	Date	The date a site was last changed ( in yyyy-mm-dd format)
isPrimary	Boolean	true if the location is the primary (or official) access point of the associated site; false otherwise.
degree	String	Degree of intersection (e.g., 3 for 3-way, 4 for 4-way etc.)



### ***Faults***

<b>Name</b>	<b>Definition</b>
Civic Number Missing	A given address didn't contain a civic number but one was found.
Civic Number Not In Any Block	A given civic number is not in any known address range for a given street in a given locality. The street within the given locality is returned with a match precision of STREET.
Civic Number Suffix Not Matched	A given civic number suffix for a given civic number and street was not found in a given locality.
Locality Is Alias	A given civic number and street were found in an alias of the given locality but not the locality itself.
Locality Missing	A given address didn't contain a locality name but one was found that contains the given civic number and street.
Locality Not Matched	A given locality does not contain a given civic number and street but another locality was found that does.
Locality Spelled Wrong	A given locality was spelled wrong but was successfully corrected to match a known locality.
Postal Address Element Not Allowed	An element of a mailing address was detected (e.g., PO, BOX nn, SS, RR nn, a postal code. All such elements are ignored.
Province Missing	A given address didn't contain a province code (e.g., BC)
Province Not Matched	A province code other than BC was found
Site Name missing	A given address didn't contain a site name but one was found.
Site Name Not Matched	A given site name was not found. A match without a site name is returned.
Site Name Partially Matched	Some of the words in a site name were matched. A match with a full site name is returned.
Site Name Spelled Wrong	A given site name was spelled wrong but was successfully matched to a known site.
Street Missing	A given address didn't contain a street but one was found.
Street Direction Missing	A given address didn't contain a street direction for a given street name and street type in a given locality but one was found.
Street Direction Not Matched	A given street direction for a given street name and street type in a given locality was not found. A match without the street direction is returned.
Street Direction Spelled Wrong	A given street direction was spelled wrong. A match with a correctly spelled street direction is returned.
Street Name Is Alias	A given street name is an alias for the official street name. A match with the official street name is returned.
Street Name Missing	A given address didn't contain a street name but one was found.
Street Name Not Matched	A given streetName within a given locality was not found. The locality is returned with a match precision of LOCALITY. Other addresses in different localities that contain the given civic number and street will also be returned but with a lesser score.
Street Name Spelled Wrong	A given street name was spelled wrong but was successfully corrected to match a known street name with the given locality.
Street Qualifier Missing	A given address didn't contain a street qualifier but one was found.
Street Qualifier Not Matched	A given street qualifier was not found. A match without a street qualifier is returned.

Street Qualifier Spelled Wrong	A given street qualifier was spelled wrong but was successfully corrected to match a known street qualifier.
Street Type Missing	A given address didn't contain a street type for a given street name in a given locality but one was found.
Street Type Not Matched	A given street type for a given street name in a given locality was not found. A match containing the correct street type is returned.
Street Type Spelled Wrong	A given street type was spelled wrong but was successfully corrected to match a known street type.
Unrecognized element notAllowed	A potential street name or locality name isn't known anywhere in the province (e.g., Gazoony St). Since geocoder v1.4, the parser gives up, keeping execution time short. In v1.3, the parser would not give up until it returned a more meaningful fault like streetName notMatched but this took too long.
Unit Designator Is Alias	A given unit designator is an alias of the official unit designator. A match containing the official unit designator is returned.
Unit Designator Missing	A given address didn't contain a unit designator but one was found.
Unit Designator Not Matched	A given unit designator was not found. A match containing the correct unit designator is returned.
Unit Designator Spelled Wrong	A given unit designator was spelled wrong but was successfully corrected to match a known unit designator.
Unit Number Missing	A given address didn't contain a unit number but one was found.
Unit Number Not Matched	A given unit number was not found. A match containing the correct unit number is returned.
Unit Number Suffix missing	A given address didn't contain a unit number suffix but one was found.
Unit Number Suffix Not Matched	A given unit number suffix was not found. A match containing the correct unit number suffix is returned.

## ***Occupant Addresses Resource [New in v2.0]***

The Occupant Addresses resource represents occupants and their associated addresses. A request on this resource will return one or more matching occupant addresses that are standardized and geocoded (i.e., given a point location on the earth).

An occupant address query is similar to an address query. You need to include a tags parameter that specifies the type or types of occupants, and you need to include occupant name in the addressString parameter. Here is an example query for the Victoria Law Courts:

<http://apps.gov.bc.ca/pub/geocoder/occupants/addresses.geojson?tags=courts&addressString=victoria%20law%20courts%20--%20>

Note that the front gate separator ("--") follows Victoria Law Courts to indicate that it is an occupant name.

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ( { } ) indicate template parameters.

```
{baseUrl}/occupants/addresses[.{outputFormat}]
```

geocodes a query address if the specified occupant is known to the geocoder and the civic number is known to the geocoder or is within a known address range.

### ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
------------------	-------------	--------------------

baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

Query string parameters are the same as those supported by the Addresses resource with the following changes and additions:

Parameter	Type	Required	Default	Description
addressString	String	Yes		Occupant name plus civic address or intersection address in Single-line Address Format or a recognized alternative format (see last two sections of this document). Occupant name is optional but if given, should appear before the front gate delimiter ("--") as in "Victoria Law Courts -- 852 Burdett St, Victoria, BC". An occupant name plus front gate delimiter is a valid address string (e.g., "Victoria Law Courts --").  If no occupant name is given, query is treated just like an addresses request.
tags	String	Yes		A semi-colon separated list of occupant types (e.g., tags="courts;hospitals")

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

## HTTP Responses

This resource will return a document in the requested format and spatial reference system. Documents in formats that support header records (e.g., XHTML, KML, GEOJSON, GEOJSONP, GML) will contain a single About Query record describing the query and its execution. If an occupant name is not included in the addressString query parameter of a geocoder/occupants/addresses request, the response will be exactly the same as a response to a geocoder/addresses request. If an occupant name is included, an Occupant Address record will be returned.

### Occupant Address Record

Site Address Attribute	Type	Description
fullAddress	String	Civic or non-civic address in Single-Line Address Format (see last section of this document) including occupant name.
score	integer	Match score (between 0 and 100)
matchPrecision	String	<p>The level of precision of an occupant address match. Here are all levels from the most precise to least precise:</p> <ul style="list-style-type: none"> <li>• <b>occupant</b> - the occupant name matched</li> <li>• <b>civicNumber</b> – the civic number matched</li> <li>• <b>block</b> – the civic number falls within a known block range</li> <li>• <b>street</b> – the street name, street direction, and street type matched</li> <li>• <b>locality</b> – the locality matched</li> <li>• <b>province</b> – no match</li> </ul> <p>Here are all intersection address levels:</p> <ul style="list-style-type: none"> <li>• <b>intersection</b></li> <li>• <b>locality</b></li> <li>• <b>province</b></li> </ul>
precisionPoints	integer	Points given for matchPrecision

faults	String	The list of faults found with a given address match. Each fault contains the nature of the fault, the address property affected, and the fault penalty. See Faults table below for a list of all faults.
siteName	String	A string containing the name of the building, facility, or institution (e.g., Duck Building, Casa Del Mar, Crystal Garden, Bluebird House). A business name should only be used if it is permanently affixed to the site and the site has no other, more generic name. If a site is a unit within a complex, it may have a sitename in addition to a unitNumber and unitSuffix. siteName is optional for civic addresses but required for non-civic addresses.
unitDesignator	String	The type of unit within a house or building. Valid values are APT, BLDG, BSMT, FLR, LOBBY, LWR, PAD, PH, REAR, RM, SIDE, SITE, SUITE, TH, UNIT, and UPPR. The geocoder will try to match variations of these values on input (e.g., UPR) and output the standardized value (e.g., UPPR).
unitNumber	String	The number of the unit, suite, or apartment within a house or building.
unitNumberSuffix	String	A letter that follows the unit number as in Unit 1A or Suite 302B.
civicNumber	String	The official number assigned to a site on a street by an address authority.
civicNumberSuffix	String	A letter or fraction that follows the civic number. There should be no space between a civic number and a letter (e.g., Unit 1A) and one space between a civic number and a fraction (e.g., Suite 3 ½)
streetName	String	The official name of the street recognized by a municipality (e.g., Douglas in 1175 Douglas Street). A streetName that starts with a directional is not abbreviated (e.g., North Park, not N Park).
streetType	String	The type of street as assigned by a municipality (e.g., the ST in 1175 DOUGLAS ST) and is abbreviated if such an abbreviation exists. The set of all street types is defined by the provincial Integrated Transportation Network program.
isStreetTypePrefix	Boolean	True if streetType should appear before streetName in fullAddress; false if streetType should appear after streetName

streetDirection	String	The abbreviated compass direction as defined by Canada Post and B.C. civic addressing authorities . The complete list is C, E, N, NE, NW, S, SE, SW, and W. All street directions except C are defined by Canada Post.
isStreetDirectionPrefix	Boolean	True if streetDirection should appear before street name in fullAddress; false if streetDirection should appear after streetName
streetQualifier	String	The qualifier of a street name (e.g., the Bridge in Johnson St Bridge)
localityName	String	The name of the municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, or natural feature the site is located in. Since this standard is about geocoding, not mail delivery, the locality of a civic address is that defined by the civic address authority, not Canada Post. A locality name that starts with a directional is not abbreviated (e.g., North Vancouver, not N Vancouver). Spelling of localities that are place names or natural feature names MUST match that published by the BC Geographical Names Information System.
localityType	String	Can be a municipality, community, Indian reservation, subdivision, regional district, aboriginal lands, forward sortation area, or natural feature.
provinceCode	String	The ISO 3166-2 Sub-Country Code for British Columbia, which is BC.
locationPositionalAccuracy	String	The accuracy of the coordinates representing the location of the site. <ul style="list-style-type: none"> <li>• <b>high</b> if the point position was observed or measured using GPS or survey instruments, or digitized off imagery with a resolution of 1m or better.</li> <li>• <b>medium</b> if point position was derived from parcel boundaries or from a point known to be inside a parcel.</li> <li>• <b>low</b> if point position was interpolated along a block face address range.</li> <li>• <b>coarse</b> if the point position represents an entire street, locality, or province.</li> </ul>

locationDescriptor	String	Describes the nature of the location. Values include accessPoint, frontDoorPoint, localityPoint, parcelPoint, provincePoint, rooftopPoint, routingPoint, streetPoint
siteID	string	A unique identifier assigned to every site in B.C. They are currently not immutable. Poor matches and interpolated results don't return a siteID.
siteURL	string	The unique URL that a given site is associated with. Returns a site address.
blockID	String	ID of ITN road segment that site appears on
fullSiteDescriptor	String	That portion of addressString that precedes the civic number (in the case of a civic address) or the locality (in the case of a non-civic address).
narrativeLocation	String	Written directions to access the site. The narrative should start at the closest known, named physical feature to the site (e.g. from Tlell, travel north on highway 16 to the big golden spruce tree on your left, hike west for about one kilometre).
accessNotes	String	Additional information that is helpful in determining the access location and any restrictions on mode of access (e.g., boat only, floatplane only).
siteStatus	String	The status of the site (active, or retired). A site is usually retired when it is destroyed or combined with another site.
siteRetireDate	Date	The date the site was retired (in yyyy-mm-dd format)
changeDate	Date	The date a site was last changed ( in yyyy-mm-dd format)
isPrimary	Boolean	true if the location is the primary (or official) access point of the associated site; false otherwise.
occupantName	String	Name of the occupant (e.g., Victoria Law Courts)
occupantID	String	A unique identifier assigned to every occupant in the geocoder
occupantAliasAddress	String	An alias address is an unofficial address that an occupant uses for marketing or other purposes. For example, a tourist attraction in Central Saanich may prefer to use Victoria as their locality.
occupantDescription	String	Description of the occupant



contactEmail	String	Occupant's contact email address
contactPhone	String	Occupant's contact phone number
contactFax	String	Occupant's contact fax number
websiteUrl	String	URL of occupant's website
imageUrl	String	URL of a photo of the occupant
keywords	String	One or more keywords that describe the occupant. Keywords are separated by semi-colons and can have embedded spaces. Keywords are used by the tags parameter when searching for occupants.
businessCategoryClass	String	Occupant's business category. This is derived from the name associated with the occupant's naicsCode (see below)
businessCategoryDescription	String	Business category description derived from the description associated with the naicsCode in the North American Industry Classification System Canada 2012. See <a href="http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&amp;TVD=118464">http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&amp;TVD=118464</a>
naicsCode		Code of occupant's business in the North American Industry Classification System Canada 2012. See <a href="http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&amp;TVD=118464">http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&amp;TVD=118464</a>
dateOccupantUpdated	Date	The date an occupant was last changed ( in yyyy-mm-dd format)
custodianId	String	The unique id of the data custodian that provided the occupant data to the geocoder.
sourceDataId	String	The unique id of the source dataset that the occupant data comes from.

### ***Occupant Faults***

<b>Name</b>	<b>Definition</b>
Occupant Name Partial Match	A given occupant name partial matched to a known occupant.
Occupant Name Not Matched	A given occupant name was not matched to any known occupant.

## Site Resource

The Site resource represents an individual site.

### **HTTP Request Methods**

This resource can be accessed using the following HTTP request methods.

- GET

### **URI Templates**

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/sites/{siteId}[.{outputFormat}]
```

represents an individual site.

### **URI Template Parameters**

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
siteId	String	Unique id of site of interest
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	No	4326	<p>EPSG code of the projection used to state the coordinate location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:</p> <p><b>3005:</b> BC Albers</p> <p><b>4326:</b> WGS 84 (default)</p> <p><b>26907 26911:</b> NAD83/UTM Zones 7N through 11N</p> <p><b>32607 32611:</b> WGS84/UTM Zones 7N through 11N</p> <p><b>26707 26711:</b> NAD27/UTM Zones 7N through 11N</p>
locationDescriptor	String	No	any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
setBack	Real	No	0	The distance to move the accessPoint away from the curb (in meters) and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.



### ***HTTP Responses***

This resource will return a document containing a single Site Address record in the requested format and spatial reference system.

## Intersection Resource

The Intersection resource represents an individual intersection.

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/intersections/{intersectionId}[.{outputFormat}]
```

represents an individual intersection.

### ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
intersectionId	String	Unique id of intersection of interest
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer		4326	<p>EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:</p> <p><b>3005:</b> BC Albers</p> <p><b>4326:</b> WGS 84 (default)</p> <p><b>26907 26911:</b> NAD83/UTM Zones 7N through 11N</p> <p><b>32607 32611:</b> WGS84/UTM Zones 7N through 11N</p> <p><b>26707 26711:</b> NAD27/UTM Zones 7N through 11N</p>

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

## HTTP Responses

This resource will return a document containing a single Intersection Address record in the requested format and spatial reference system.

## Occupant Resource [New in v2.0]

The Occupant resource represents an individual occupant.

### **HTTP Request Methods**

This resource can be accessed using the following HTTP request methods.

- GET

### **URI Templates**

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/occupants/{occupantId} [.{outputFormat}]
```

represents an individual site.

### **URI Template Parameters**

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
occupantId	String	Unique id of occupant of interest
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	No	4326	<p>EPSG code of the projection used to state the coordinate location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:</p> <p><b>3005:</b> BC Albers</p> <p><b>4326:</b> WGS 84 (default)</p> <p><b>26907 26911:</b> NAD83/UTM Zones 7N through 11N</p> <p><b>32607 32611:</b> WGS84/UTM Zones 7N through 11N</p> <p><b>26707 26711:</b> NAD27/UTM Zones 7N through 11N</p>
locationDescriptor	String	No	any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
setBack	Real	No	0	The distance to move the accessPoint away from the curb (in meters) and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.





### ***HTTP Responses***

This resource will return a document containing a single Occupant Address record in the requested format and spatial reference system.

## Nearest Site Resource

The Nearest Site resource represents the nearest site to a given point. Here are some example requests:

1. Find the nearest site to the lon/lat point (-123.3650572, 48.4252342)

<http://apps.gov.bc.ca/pub/geocoder/sites/nearest.kml?point=-123.3650572,%2048.4252342&outputSRS=4326&locationDescriptor=accessPoint>

2. Find the nearest site to the same point and add a setback to its accessPoint so it is further away from the curb and closer to the middle of the parcel.

<http://apps.gov.bc.ca/pub/geocoder/sites/nearest.kml?point=-123.3650572,%2048.4252342&outputSRS=4326&locationDescriptor=accessPoint&setBack=4>

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ( { } ) indicate template parameters.

```
{baseUrl}/sites/nearest[.{outputFormat}]
```

represents the nearest site to a given point.

### ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	<p>EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:</p> <p><b>3005:</b> BC Albers</p> <p><b>4326:</b> WGS 84 (default)</p> <p><b>26907 26911:</b> NAD83/UTM Zones 7N through 11N</p> <p><b>32607 32611:</b> WGS84/UTM Zones 7N through 11N</p> <p><b>26707 26711:</b> NAD27/UTM Zones 7N through 11N</p>
locationDescriptor	String	N	any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
point	String	Y		x,y of location in the projection specified by the outputSRS (e.g., &point=-123.110905,49.360243)
maxDistance	Real	N	Infinity	The maximum distance (in metres) away from point to look for the nearest point (e.g., if no site found within &maxDistance=1000 of point, return no results).
setBack	Real	N	0	The distance (in metres) to move the accessPoint away from the curb and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.

500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.
-----	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### ***HTTP Responses***

This resource will return a document containing a single Site Address record in the requested format and spatial reference system.

## Nearest Intersection Resource

The Nearest Intersection resource represents the nearest intersection to a given point. Here are some examples:

1. Find the nearest intersection to the lon/lat point (-123.3650572,48.4252342)  
<http://apps.gov.bc.ca/pub/geocoder/intersections/nearest.kml?point=-123.3650572,%2048.4252342>
2. Find the nearest five-way intersection to the same point  
<http://apps.gov.bc.ca/pub/geocoder/intersections/nearest.kml?point=-123.3650572,%2048.4252342&minDegree=5&maxDegree=5>
3. Find the nearest dead-end to the same point  
<http://apps.gov.bc.ca/pub/geocoder/intersections/nearest.kml?point=-123.3650572,%2048.4252342&minDegree=1&maxDegree=1>
4. Find the nearest intersection (excluding dead-ends and five-ways or higher)  
<http://apps.gov.bc.ca/pub/geocoder/intersections/nearest.kml?point=-123.3650572,%2048.4252342&minDegree=2&maxDegree=4>

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/intersections/nearest[.{outputFormat}]
```

represents the nearest intersection to a given point.

### **URI Template Parameters**

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

### **Query String Parameters**

The following query string parameters are supported:

<b>Parameter</b>	<b>Type</b>	<b>Required</b>	<b>Default</b>	<b>Description</b>
outputSRS	integer	N	4326	EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:  <b>3005:</b> BC Albers  <b>4326:</b> WGS 84 (default)  <b>26907 26911:</b> NAD83/UTM Zones 7N through 11N  <b>32607 32611:</b> WGS84/UTM Zones 7N through 11N  <b>26707 26711:</b> NAD27/UTM Zones 7N through 11N
point	Coordinate pair	Y		x,y of location in the projection specified by the outputSRS (e.g., &point=-123.110905,49.360243)
maxDistance	Real	N	Infinity	The maximum distance (in metres) away from point to look for the nearest intersection (e.g., if no intersection found within &maxDistance of point, return no results).
minDegree	Integer	N	2	The minimum number of road segments the intersection must intersect. A three-way intersection has a degree of 3; a four-way, 4, etc.
maxDegree	Integer	N	100	The maximum number of road segments the intersection must intersect. A three-way intersection has a degree of 3; a four-way, 4, etc.

## ***HTTP Status Codes***

This resource will return one of the following status codes. The HTML error page may include an error message.

<b>Status Code</b>	<b>Description</b>
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

## ***HTTP Responses***

This resource will return a document containing a single Intersection Address record in the requested format and spatial reference system.

## Nearest Occupant Resource [New in v2.0]

The Nearest Occupant resource represents the nearest occupant to a given point. Here are some example requests:

1. Find the nearest occupant to the lon/lat point (-123.3650572, 48.4252342)

<http://apps.gov.bc.ca/pub/geocoder/occupants/nearest.kml?point=-123.3650572,%2048.4252342&tags=courts>

2. Find the nearest occupant to the same point and add a setback to its accessPoint so it is further away from the curb and closer to the middle of the parcel.

<http://apps.gov.bc.ca/pub/geocoder/occupants/nearest.kml?point=-123.3650572,%2048.4252342&tags=courts&setBack=10&locationDescriptor=accessPoint>

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ( { } ) indicate template parameters.

```
{baseUrl}/occupants/nearest[.{outputFormat}]
```

represents the nearest occupant to a given point.

### ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an HTTP request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service



outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml
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## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	<p>EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:</p> <p><b>3005:</b> BC Albers</p> <p><b>4326:</b> WGS 84 (default)</p> <p><b>26907 26911:</b> NAD83/UTM Zones 7N through 11N</p> <p><b>32607 32611:</b> WGS84/UTM Zones 7N through 11N</p> <p><b>26707 26711:</b> NAD27/UTM Zones 7N through 11N</p>
locationDescriptor	String	N	any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
point	String	Y		x,y of location in the projection specified by the outputSRS (e.g., &point=-123.110905,49.360243)
maxDistance	Real	N	Infinity	The maximum distance (in metres) away from point to look for the nearest point (e.g., if no site found within &maxDistance=1000 of point, return no results).
setBack	Real	N	0	The distance (in metres) to move the accessPoint away from the curb and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.
tags	String	Y		A semi-colon separated list of occupant types (e.g., tags="courts;hospitals")

### ***HTTP Status Codes***

This resource will return one of the following status codes. The HTML error page may include an error message.

<b>Status Code</b>	<b>Description</b>
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

### ***HTTP Responses***

This resource will return a document containing a single Occupant Address record in the requested format and spatial reference system.

## Sites Near Point Resource

The Sites Near Point resource represents the N nearest sites to a point in order of increasing distance (e.g., closest site first). Here are some examples:

1. Find the 100 closest sites to the lon/lat point (-123.110905,49.360243)

<http://apps.gov.bc.ca/pub/geocoder/sites/near.kml?point=-123.110905,49.360243&maxResults=100>

2. Find the 100 closest sites to the same point but add a setback of 4 metres to the resulting accessPoints.

<http://apps.gov.bc.ca/pub/geocoder/sites/near.kml?point=-123.110905,49.360243&maxResults=100&locationDescriptor=accessPoint&setBack=4>

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/sites/near[.{outputFormat}]
```

represents the nearest site to a given point.

### ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:  <b>3005:</b> BC Albers  <b>4326:</b> WGS 84 (default)  <b>26907 26911:</b> NAD83/UTM Zones 7N through 11N  <b>32607 32611:</b> WGS84/UTM Zones 7N through 11N  <b>26707 26711:</b> NAD27/UTM Zones 7N through 11N
locationDescriptor	String	N	any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
point	Coordinate pair	Y		x,y of location in the projection specified by the outputSRS; (e.g., &point=-123.110905,49.360243)
maxDistance	Real	N	Infinity	The maximum distance (in metres) away from point to look.
maxResults	Integer	N	1	The maximum number of results to return.
setBack	Real	N	0	The distance (in metres) to move the accessPoint away from the curb and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem

	persists, contact the support desk with exact details of the parameters you were using.
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### ***HTTP Responses***

This resource will return a document containing a single Site Address record in the requested format and spatial reference system.

## Intersections Near Point Resource

The Intersections Near resource represents the N nearest intersections to a point in order of increasing distance (e.g., closest intersection first).

Here are some examples:

1. Find the ten closest intersections to the lon/lat point (-123.110905,49.360243)  
<http://apps.gov.bc.ca/pub/geocoder/intersections/near.kml?point=-123.110905,49.360243&maxResults=10>
2. Find the ten closest intersections to the same point but add a setback of 4 metres to the resulting accessPoints.  
<http://apps.gov.bc.ca/pub/geocoder/intersections/near.kml?point=-123.110905,49.360243&maxResults=10&locationDescriptor=accessPoint&setBack=4>
3. Find the ten closest five-way intersections to the lon/lat point (-123.3650572,48.4252342)  
<http://apps.gov.bc.ca/pub/geocoder/intersections/near.kml?point=-123.3650572,%2048.4252342&minDegree=5&maxDegree=5&maxResults=10>
4. Find the ten closest dead-ends to the lon/lat point (-123.3650572,48.4252342)  
<http://apps.gov.bc.ca/pub/geocoder/intersections/near.kml?point=-123.3650572,%2048.4252342&minDegree=1&maxDegree=1&maxResults=10>
5. Find the ten closest intersections, excluding dead-ends and five-ways or higher, to the lon/lat point (-123.3650572,%2048.4252342)  
<http://apps.gov.bc.ca/pub/geocoder/intersections/near.kml?point=-123.3650572,%2048.4252342&minDegree=2&maxDegree=4&maxResults=10>

### **HTTP Request Methods**

This resource can be accessed using the following HTTP request methods.

- GET

### **URI Templates**

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/intersections/near[.{outputFormat}]
```

represents the nearest intersection to a given point.

### URI Template Parameters

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

Parameter	Type	Description
baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

### Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:  <b>3005:</b> BC Albers  <b>4326:</b> WGS 84 (default)  <b>26907 26911:</b> NAD83/UTM Zones 7N through 11N  <b>32607 32611:</b> WGS84/UTM Zones 7N through 11N  <b>26707 26711:</b> NAD27/UTM Zones 7N through 11N
point	Coordinate pair	Y		x,y of location in the projection specified by the outputSRS (e.g., &point=-123.110905,49.360243)
maxDistance	Real	N	Infinity	The maximum distance (in metres) away from point to look.
maxResults	Integer	N	1	The maximum number of results to return.
minDegree	Integer	N	2	The minimum number of road segments the intersection must intersect. A three-way intersection has a degree of 3; a four-way, 4, etc.
maxDegree	Integer	N	100	The maximum number of road segments the intersection must intersect. A three-way intersection has a degree of 3; a four-way, 4, etc.

## ***HTTP Status Codes***

This resource will return one of the following status codes. The HTML error page may include an error message.

<b>Status Code</b>	<b>Description</b>
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

## ***HTTP Responses***

This resource will return a document containing a single Intersection Address record in the requested format and spatial reference system.



## Occupants Near Point Resource [New in v2.0]

The Occupants Near Point resource represents the N nearest occupants to a point in order of increasing distance (e.g., closest occupant first). Here are some examples:

3. Find the five closest occupants to the lon/lat point (-123.110905,49.360243)

<http://apps.gov.bc.ca/pub/geocoder/occupants/near.kml?point=-123.110905,49.360243&maxResults=5&tags=hospitals>

4. Find the five closest occupants to the same point but add a setback of 4 metres to the resulting accessPoints.

<http://apps.gov.bc.ca/pub/geocoder/occupants/near.kml?point=-123.110905,49.360243&maxResults=5&locationDescriptor=accessPoint&setBack=4&tags=hospitals>

### **HTTP Request Methods**

This resource can be accessed using the following HTTP request methods.

- GET

### **URI Templates**

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/occupants/near[.{outputFormat}]
```

represents the nearest occupant to a given point.

### **URI Template Parameters**

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

Parameter	Type	Description
baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:  <b>3005:</b> BC Albers  <b>4326:</b> WGS 84 (default)  <b>26907 26911:</b> NAD83/UTM Zones 7N through 11N  <b>32607 32611:</b> WGS84/UTM Zones 7N through 11N  <b>26707 26711:</b> NAD27/UTM Zones 7N through 11N
locationDescriptor	String	N	any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
point	Coordinate pair	Y		x,y of location in the projection specified by the outputSRS; (e.g., &point=-123.110905,49.360243)
maxDistance	Real	N	Infinity	The maximum distance (in metres) away from point to look.
maxResults	Integer	N	1	The maximum number of results to return.
setBack	Real	N	0	The distance (in metres) to move the accessPoint away from the curb and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.
tags	String	Y		A semi-colon separated list of occupant types (e.g., tags="courts;hospitals")

## HTTP Status Codes

This resource will return one of the following status codes. The HTML error page may include an error message.

Status Code	Description
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

### ***HTTP Responses***

This resource will return a document containing a list of Occupant Address records in the requested format and spatial reference system.

## Sites Within Area Resource

The Sites Within Area resource represents all sites within a given bounding box. Here some examples:

1. Find all sites within a given bbox

<http://apps.gov.bc.ca/pub/geocoder/sites/within.xhtml?bbox=-123.3685640192275,48.42361401804247,-123.3615635807723,48.42685630801851>

2. Find all sites within a given bbox and add a setback to their access points.

<http://apps.gov.bc.ca/pub/geocoder/sites/within.xhtml?bbox=-123.3685640192275,48.42361401804247,-123.3615635807723,48.42685630801851&locationDescriptor=accessPoint&setBack=4>

### **HTTP Request Methods**

This resource can be accessed using the following HTTP request methods.

- GET

### **URI Templates**

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/sites/within[.{outputFormat}]
```

represents all sites within a given bounding box.

### **URI Template Parameters**

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	<p>EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:</p> <p><b>3005:</b> BC Albers</p> <p><b>4326:</b> WGS 84 (default)</p> <p><b>26907 26911:</b> NAD83/UTM Zones 7N through 11N</p> <p><b>32607 32611:</b> WGS84/UTM Zones 7N through 11N</p> <p><b>26707 26711:</b> NAD27/UTM Zones 7N through 11N</p>
locationDescriptor	String		any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
setBack	Real	N	0	The distance (in metres) to move the accessPoint away from the curb and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.
bbox	String	Y		<p>A bounding box that filters out all addresses outside its limits; it is a comma separated list of coordinate bounds in the order: min lon/easting, min lat/northing, max lon/easting, max lat/northing. Here is an example:</p> <p><b>&amp;bbox=-126.0792945083648,49.76287332290923,-126.0163386310997,49.79077056256354)</b></p>
maxResults	Integer	N	200	Maximum number of sites that should be returned. If you specify a number greater than 200, it will be treated as 200.

### ***HTTP Status Codes***

This resource will return one of the following status codes. The HTML error page may include an error message.

<b>Status Code</b>	<b>Description</b>
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

### ***HTTP Responses***

This resource will return a document containing one or more Site Address records in the requested format and spatial reference system.

## Intersections Within Area Resource

The Intersections Within Area resource represents all intersections within a given bounding box. Here some examples:

1. Find all intersections within a given bbox

<http://apps.gov.bc.ca/pub/geocoder/intersections/within.xhtml?bbox=-123.3685640192275,48.42361401804247,-123.3615635807723,48.42685630801851>

2. Find all dead-ends within a given bbox

<http://apps.gov.bc.ca/pub/geocoder/intersections/within.xhtml?bbox=-123.3685640192275,48.42361401804247,-123.3615635807723,48.42685630801851>

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/intersections/within[.{outputFormat}]
```

represents all intersections within a given bounding box.

### ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

Parameter	Type	Description
-----------	------	-------------

baseUrl	String	baseUrl of physical address geocoder web service
outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml

## Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	<p>EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:</p> <p><b>3005:</b> BC Albers</p> <p><b>4326:</b> WGS 84 (default)</p> <p><b>26907 26911:</b> NAD83/UTM Zones 7N through 11N</p> <p><b>32607 32611:</b> WGS84/UTM Zones 7N through 11N</p> <p><b>26707 26711:</b> NAD27/UTM Zones 7N through 11N</p>
minDegree	Integer	N	2	Minimum number of streets connected to intersection; for all intersections but dead-ends, set &minDegree=2
maxDegree	Integer	N	100	Maximum number of streets connected to intersection; for all three way intersections, set &minDegree=3,&maxDegree=3
bbox	String	Y		<p>A bounding box that filters out all addresses outside its limits; it is a comma separated list of coordinate bounds in the order: min lon/easting, min lat/northing, max lon/easting, max lat/northing. Here is an example:</p> <p>&amp;bbox=-126.0792945083648,49.76287332290923,-126.0163386310997,49.79077056256354)</p>
centre	String	Yes if maxDistance is provided; no otherwise		The centre point of a bounding circle that filters out all addresses outside its limits; it is a comma separate list of lon/easting and lat/northing coordinates (e.g.,&centre=-124.0165926,49.2296251)
maxDistance	Real	Yes if centre is provided; no otherwise		Radius of a bounding circle (in metres) that filters out all addresses outside its limits (e.g., &distance=2000); distance and centre must both be specified in a given request
maxResults	Integer	N	200	Maximum number of intersections that should be returned. If you specify a number greater than 200, it will be treated as 200.



## ***HTTP Status Codes***

This resource will return one of the following status codes. The HTML error page may include an error message.

<b>Status Code</b>	<b>Description</b>
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

## ***HTTP Responses***

This resource will return a document containing one or more Intersection Address records in the requested format and spatial reference system.

## Occupants Within Area Resource [New in v2.0]

The Occupants Within Area resource represents all occupants within a given bounding box. Here some examples:

1. Find all occupants within a given bbox

<http://apps.gov.bc.ca/pub/geocoder/occupants/within.kml?bbox=-122.1095691244195,48.31859920981076,-124.0298161117604,60.36066914491962&tags=hospitals&locationDescriptor=any>

2. Find all occupants within a given bbox and add a setback to their access points.

<http://apps.gov.bc.ca/pub/geocoder/occupants/within.kml?bbox=-122.1095691244195,48.31859920981076,-124.0298161117604,60.36066914491962&tags=hospitals&locationDescriptor=accessPoint&setBack=4>

### ***HTTP Request Methods***

This resource can be accessed using the following HTTP request methods.

- GET

### ***URI Templates***

The URI templates define the paths that can be appended to the base URL of the service to access this resource. Square brackets ([ ]) indicate optionality and brace brackets ({ }) indicate template parameters.

```
{baseUrl}/occupants/within[.{outputFormat}]
```

represents all occupants within a given bounding box.

### ***URI Template Parameters***

The URI template supports the following parameters which must be replaced with values as described below. Template parameters are part of the url path so appear before the question mark (?) in an http request.

<b>Parameter</b>	<b>Type</b>	<b>Description</b>
baseUrl	String	baseUrl of physical address geocoder web service

outputFormat	String	Name of the output format; xhtml, kml, csv, shpz, geojson, geojsonp, gml
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### Query String Parameters

The following query string parameters are supported:

Parameter	Type	Required	Default	Description
outputSRS	integer	N	4326	EPSG code of the projection used to state the coordination location of a named feature. It is ignored (WGS 84) if KML output is specified. Possible values:  <b>3005:</b> BC Albers  <b>4326:</b> WGS 84 (default)  <b>26907 26911:</b> NAD83/UTM Zones 7N through 11N  <b>32607 32611:</b> WGS84/UTM Zones 7N through 11N  <b>26707 26711:</b> NAD27/UTM Zones 7N through 11N
locationDescriptor	String		any	Type of point to return (any, accessPoint, frontDoorPoint, parcelPoint, rooftopPoint, routingPoint). A value of any will return a point type other than accessPoint if one is defined; otherwise, it will return an accessPoint
setBack	Real	N	0	The distance (in metres) to move the accessPoint away from the curb and towards the inside of the parcel. locationDescriptor must be set to accessPoint for setBack to take effect.
bbox	String	Y		A bounding box that filters out all addresses outside its limits; it is a comma separated list of coordinate bounds in the order: min lon/easting, min lat/northing, max lon/easting, max lat/northing. Here is an example:  &bbox=-126.0792945083648,49.76287332290923,-126.0163386310997,49.79077056256354)
maxResults	Integer	N	200	Maximum number of sites that should be returned. If you specify a number greater than 200, it will be treated as 200.
tags	String	Y		A semi-colon separated list of occupant types (e.g., tags="courts;hospitals")

### ***HTTP Status Codes***

This resource will return one of the following status codes. The HTML error page may include an error message.

<b>Status Code</b>	<b>Description</b>
200	The requested resource will be returned in the body of the HTTP response in the requested format.
500	There was an unexpected error on the server. This is sometimes temporary so try again after a few minutes. The problem could also be caused by bad input parameters so verify all input parameters. If the problem persists, contact the support desk with exact details of the parameters you were using.

### ***HTTP Responses***

This resource will return a document containing one or more OccupantAddress records in the requested format and spatial reference system.

## Single-Line Address Format

An address may be represented by a single line (string) in one of the formats listed below.

In each format, a term in square brackets is optional, a term in square brackets followed by an asterisk means the term may appear zero or more times, and a term in square brackets followed by a plus sign means the term may appear one or more times. A term in brace brackets (e.g., {streetDirection}) may appear in none or one of the multiple places indicated (e.g., Central St, N Central St, or Central St N, but not N Central St NE)

### Format 1 – Civic address

```
{occupantName[,]} [[unitDesignator unitNumber[unitNumberSuffix]] [siteName],]*
frontGate civicNumber[civicNumberSuffix] {streetDirection} {streetType} streetName
{streetType} {streetDirection} [streetQualifier], localityName, provinceCode
```

### Format 2 – Non-civic address

```
{occupantName[,]} [[unitDesignator unitNumber[unitNumberSuffix]] [siteName],]*
frontGate [{streetDirection} {streetType} streetName {streetType} {streetDirection}
[streetQualifier],] localityName, provinceCode
```

### Format 3 – Intersection address

```
{streetDirection} {streetType} streetName {streetType} {streetDirection}
[streetQualifier] [ and {streetDirection} {streetType} streetName {streetType}
{streetDirection} [streetQualifier] ]+ , localityName, provinceCode
```

frontGate is the double dash delimiter (e.g., "--")

Here is an example of a civic address:

420A GORGE RD E, VICTORIA, BC

which contains the following address elements:

Address Element	Value
civicNumber	420
civicNumberSuffix	A
streetName	GORGE
streetType	RD
streetDirection	E

localityName	VICTORIA
provinceCode	BC

Here is an example of a civic address with a unit:

UNIT 1A -- 433 CEDAR RAPIDS BLVD, PEMBERTON, BC

which contains the following address elements:

Address Element	Value
unitDesignator	UNIT
unitNumber	1
unitNumberSuffix	A
civicNumber	433
streetName	CEDAR RAPIDS
streetType	BLVD
localityName	PEMBERTON
provinceCode	BC

Here is an example of a non-civic address with a street qualifier:

JOHNSON ST BRIDGE, VICTORIA, BC

which contains the following address elements:

Address Element	Value
streetName	JOHNSON
streetType	ST
streetQualifier	BRIDGE
localityName	VICTORIA
provinceCode	BC

Here are some more examples:

1. Civic addresses without a unit:

1025 HAPPY VALLEY RD, METCHOSIN, BC  
130A HILL ST, NELSON, BC

2. A civic address with a unit:

PAD 2 -- 1200 NORTH PARK RD, SHAWNIGAN LAKE, BC

**3. Civic addresses with occupants:**

PORT ALICE HEALTH CENTRE -- 1090 MARINE DRIVE, PORT ALICE, BC  
ROYAL ATHLETIC PARK -- 1014 CALEDONIA AVE, VICTORIA, BC

**4. Civic addresses with a unit within a named complex:**

PAD 2, HAPPY MOBILE HOME PARK -- 1200 NORTH PARK RD, SHAWNIGAN LAKE, BC  
ROOM 103A, CLEARIHUE BUILDING, UNIVERSITY OF VICTORIA -- 3800 FINNERTY RD, VICTORIA, BC  
ROOM 230, WEST BLOCK, ROYAL JUBILEE HOSPITAL -- 1952 BAY ST, VICTORIA, BC

**5. Non-civic addresses with a unit within a named complex:**

PAD 2, HAPPY MOBILE HOME PARK -- NIMPO LAKE, BC  
PAD 2, HAPPY MOBILE HOME PARK -- REMOTE RD, NIMPO LAKE, BC

**6. Non-civic address containing a street, locality, and province:**

WILLOW DRIVE, 70 MILE HOUSE, BC  
HORSE LAKE ROAD, 100 MILE HOUSE, BC  
JOHNSON ST BRIDGE, VICTORIA, BC

**7. Non-civic addresses containing only locality and province:**

PEACE RIVER REGIONAL DISTRICT, BC  
100 MILE HOUSE, BC  
PYPER LAKE, BC

**8. Intersection addresses:**

Douglas St and Johnson St, Victoria, BC  
Douglas St and Gorge Rd E and Hillside Ave, Victoria, BC

## Alternative Address Formats

On input, the GET geocoder/addresses request can also handle the following alternatives to single-line address format:

1. Unit without a frontGate:

PAD 2, 1200 NORTH PARK RD, SHAWNIGAN LAKE, BC

2. Unit number without a frontGate and unitDesignator (as per Canada Post):

2-1200 NORTH PARK RD, SHAWNIGAN LAKE, BC

3. Unit following street (as per Canada Post):

1200 NORTH PARK RD PAD 2, SHAWNIGAN LAKE, BC