GOVERNMENT OF WESTERN AUSTRALIA

Landgate

Cadastral Extracts Data Dictionaries

November 2021

Location Services

Version: 1.8

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Amendment Register

Version	Status	Date	Author	Description of Version
Version 0.1 – 0.4	Draft	7/02/2014	Data Management Group	First DRAFT's
Version 0.5	DRAFT	19/02/2014	Data Management Group	Final DRAFT includes feedback from business review
Version 0.6	DRAFT	14/03/2014	Data Management Group	Post review, split out Norm and Shape files
Version 0.7	DRAFT	21/03/2014	Data Management Group	Addition of diagrams
Version 0.8- 1.0	FINAL	17/06/2014	Allan Campbell, Simon Connell	Addition of diagrams
Version 1.1	FINAL	02/07/2014	Prem Thangaraj (DMG)	Typo mistake corrected in section 2.3.3
Version 1.2	FINAL	14/11/2014	Allan Campbell, Simon Connell	change to the Easement Diagram. Addition of a note at the beginning of section 2.3.3 and the addition of the Land Easement usage codes 407 – 416.
Version 1.3	FINAL	26/09/2017	Mat Moyle (ESR)	Review as part of Transform/ESR program activities. No changes to cadastre tables/attributes, Tenure detail moved to separate dictionary.
Version 1.4	FINAL	15/12/2017	Mat Moyle (ESR)	Removal of Mines as per Product decision 27/10/17
Version 1.5	FINAL	17/01/2018	Mat Moyle (ESR)	Removal of Admin Boundaries references (now unique product)
Version 1.6	FINAL	27/03/2018	Mat Moyle (ESR)	Addition of Data Type and Field length values
Version 1.7	FINAL	10/11/2021	Todd Harris	Reformatting and heading amendments
Version 1.8	Final	10/11/2021	Todd Harris	*Strata Titles Act 2018* • usage code additions • Community Title Scheme data • Survey Status Codes

1 OVERVIEW

This document describes the Cadastral Dataset as delivered via the Geospatial Team at Landgate. This dataset schema was developed during the mid 1990s and has had minimal schema changes since, and as such is considered a legacy dataset. Changes have not been applied to align with the cadastral data schema as published via SLIP due to varying reasons, but mostly to lessen the impact to users who continue to rely on this data schema to feed into legacy systems.

For contemporary Cadastral dataset schema, please refer to the Cadastral Data as published via SLIP web services: https://catalogue.data.wa.gov.au/group/about/cadastre

1.1 Cadastral Data

Cadastre (cadastral) data is information relating to parcel boundaries. The data forms part of the Spatial Cadastral Database (SCDB) which stores spatially defined cadastral and related information.

The main spatial elements are:

- Polygons (are building blocks of parcels of land)
- Lines (includes arcs and strings)
- Points

The information includes approved cadastral boundaries. Data families, usage types and usage codes enable display, symbolisation and annotation of spatial features.

The main spatial elements have unique identification numbers and textual attributes. Polygon Identification Numbers (PIN), along with PiTyp and PiParcel attributes provide a linkage to Tenure information which includes property ownership and street addresses.

Landgate provide clients with live spatial data in multiple spatial data formats. Please refer to the Geodata Order form for further information.

The following describes the structure and elements contained within Landgate's available cadastral data, as ordered via the Geodata order form submission to Landgate.

1.2 Datum

Source Datum: GDA2020 [epsg: 1168]
The Spatial Cadastral Database (SCDB) and related data is stored and maintained in GDA2020 [epsg: 1168] datum.

Supplied Datum (SLIP): GDA94 [epsg: 4283]:
Data is extracted from the SCDB, transformed and delivered to SLIP in GDA94 datum. This will continue until such time that SLIP has the capability to fully accommodate the GDA2020 datum. All co-ordinate pair attribution information within the data has also been transformed to GDA94.

For the Supplied Datum, the following GDA2020 – GDA94 transformation methodology has been employed:
For mainland Australia and adjacent offshore islands - ***NTv2 national conformal + distortion transformation grid [EPSG: 8447]*** have been employed – refer below for grid extent.

- For points outside of the *NTv2 national conformal + distortion transformation grid* above, such as Cocos / Keeling and Christmas Islands, ***7-parameter similarity (Helmert) transformation (conformal) [EPSG: 8048]*** has been employed.

For more information on GDA2020 and related datum transformation methods please refer to https://www0.landgate.wa.gov.au/business-and-government/specialist-services/geodetic/gda2020

1.3 Appropriate use

Cadastral data supplied by Landgate, is a digital representation of Western Australia's cadastral network.

Cadastral data extracted from the SCDB to be used for information purposes only and is not guaranteed. The information should not be relied upon without further verification from the original documents. Where the information is being used for legal purposes then the original documents must be searched for all legal requirements.

1.4 Spatial Elements and Families

Landgate provide data to clients from the Extract Ordering application (or directly from the dissemination database) in spatial element formats of:

Polygons (land)
Points and
Lines (arcs, strings)

Within these spatial elements are families of data – which are logical groupings of a set of spatial elements. The elements and the data families available for those elements have been identified in the table below.

Family	Spatial Element
Cadastral	Polygons
	Lines
	Points
Control	Lines
	Points

1.5 Known Issues and data structure

1.5.1 Crown vs Freehold Land Types (Polygon)

The **land_type** attribute **should not be used** for differentiating between freehold and Crown land.

The values of “CROWN” and “FHOLD” only refers to the type of lot (subdivision) and not the ownership or land tenure type.

Where the land_type of a polygon is “CROWN”, and is not dominated by a State administered tenure type (eg: reserve, crown lease, Unallocated crown land identifier etc) then it may be considered freehold land.

However, some freehold land is owned by a State Government entity (Commissioner of Main Roads or Minister for Housing for instance). Consider the below snippet from the SLIP Tenure layer (which should be used for determining ownership types).

land_name	150
land_type	FHOLD
latitude	-31.948049
lease_document_identifier	Null
lease_holder	Null
level_details	Null
lga_names	VINCENT,CITY OF PERTH
locality	Null
longitude	115.873794
lot_number	150
lot_prefix	
OBJECTID	1884552
organisation_code	MRD
organisation_type	S
part_lot_indicator	N
pi_parcel	P020932 150
pi_type	1
polygon_number	11568300
postcode	Null
premise_details	Null
proprietor_name	COMMISSIONER OF MAIN ROADS

In this example (SLIP Tenure):

land_type = FHOLD
organisation_type = S (state)
proprietor_name = COMMISSIONER OF MAIN ROADS

ie: Freehold land but owned by the State of WA. This cannot be determined from the Cadastral data.

1.5.2 Easements

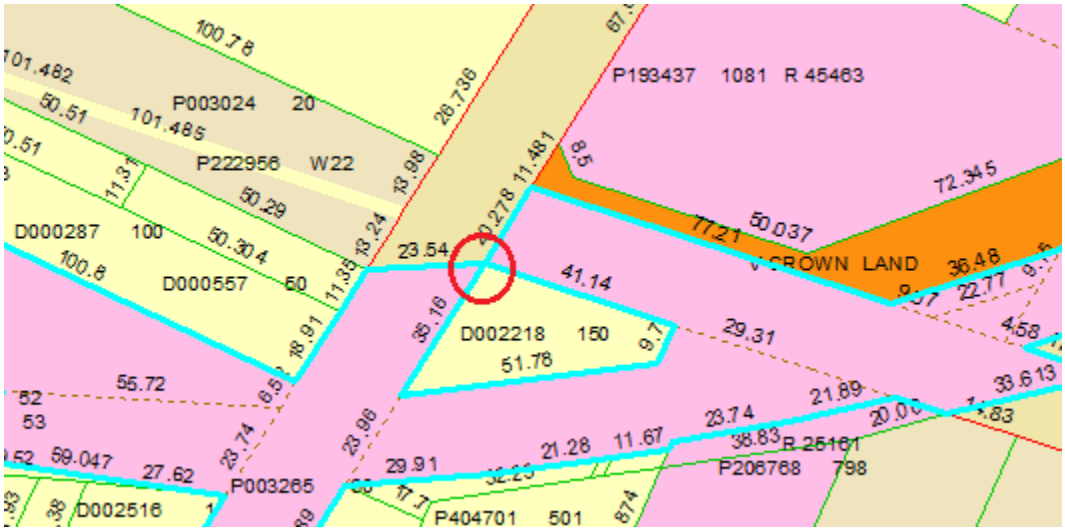
Cadastral polygon data should not be relied upon for the identification of all easements that affect land.

Where an easement comprises the full extent of a single lot/land parcel, an individual easement polygon is not captured/generated ie: if an easement covers the full extent of a land parcel / lot, a second polygon will not exist in the data that defines or indicates that an easement is apparent. This can only be attained by viewing the original documentation being the survey document and/or Certificate of Title.

Many easements that are not captured on a survey document may not be apparent in the SCDB at this time. Those easements that are not captured on a survey document can only be identified by viewing the Certificate of Title with the extent of the easement defined in the Easement document.

1.5.3 Self-intersecting polygons

The capture of cadastre does not necessarily follow sound GIS principals for polygon geometries. Cadastral land parcels will sometimes intersect. Consider the below example where the polygon self-intersect (circled red) which is not a data anomaly and does occur from time to time in cadastral boundary definition.



1.5.4 Parcel identifiers (PI_PARCEL)

Landgate has maintained a Spatial Cadastral Database (SCDB) in various forms for over 20 years. Since 2002 the SCDB resides within our corporate system “SmartPlan”.
Traditionally The PI type referred to how a lot was created; either through a Freehold (PI type 1) or a Crown (PI type 2) subdivision, under the ‘Transfer of Land Act’ or ‘Land Act’ respectively.

Current Procedure

Since the ‘Single Registration’ system has been adopted all new land parcels are created as ‘Lot on Plan’, i.e. only PI type 1 lots. There are no new crown allotments, or PI type 2 lots being created.
In our current cadastral database the “PI Type” is more to do with the name of the land parcel rather than the type of land being represented.

Note: Various work procedures have resulted in many of the old Crown lots being renamed as “lot on plan”, retaining the same lot number. This changes these lots from PI type 2 to PI type 1, while the “Land Type” remains as Crown thereby introducing possible confusion.

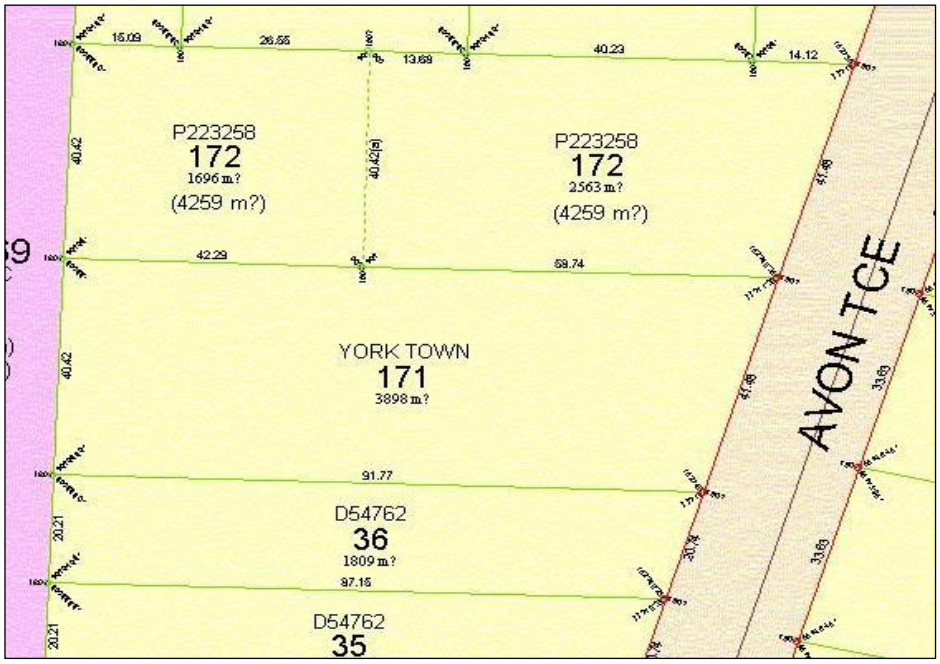
1.5.4.1 Example 1

Please refer to the sample of a portion of York Town site, for some examples to help explain. Lots 171 and 172 were created as Crown Lots on Crown Town site Plan York 14A (now called DP223258). Both were originally PI type 2 lots (Crown Allotment).

Lot 172 has since been renamed as ‘Lot 172 on DP223258’; this now makes it a PI type 1, but the Land Type remains Crown.

Lot 36 was created as a lot on plan (freehold subdivision) with a PI type 1 and a Land Type of Freehold. On the Certificate of title this parcel is called ‘Lot 36 on Diagram 54762’. (This lot would have been part of the original Crown Lot 169, which has since been completely subdivided.) Also note the extract of data from the polygon tables. This shows some of the attributes stored for land parcels.

Portion of York Town site – from the SCDB within SmartPlan (Landgate system) shown below with the extract of polygon data.



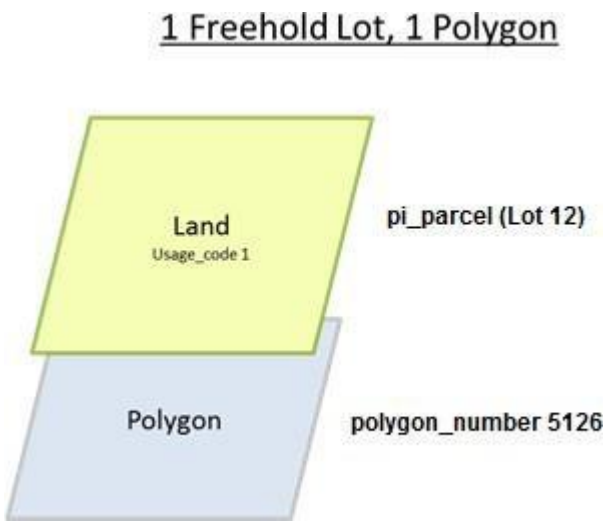
Extract of Polygon Data

	LAND_ID_NUMBER	LAND_TYPE	NAME	PI_TYPE	PI_PARCEL	PARCEL_NUMBER
▶	1253409	FHOLD	36	1	D054762 36	94795
	2056415	CROWN	YORK Town Lot / Lot 171	2	YORK T 00171	
	2056416	CROWN	172	1	P223258 172	

1.5.5 Creation of Multiple Shape Features

SCDB data exported will result in the creation of multiple feature records where multiple pi_type's or pi_parcel records exist for a single geometry (polygon). This occurs due to the need to create unique records for each pi_type or pi_parcel.
The following graphical examples are provided to help users of SCDB cadastral data to understand how these multiple features are created.

1.5.5.1 Example 2: 1 Freehold Lot, 1 polygon

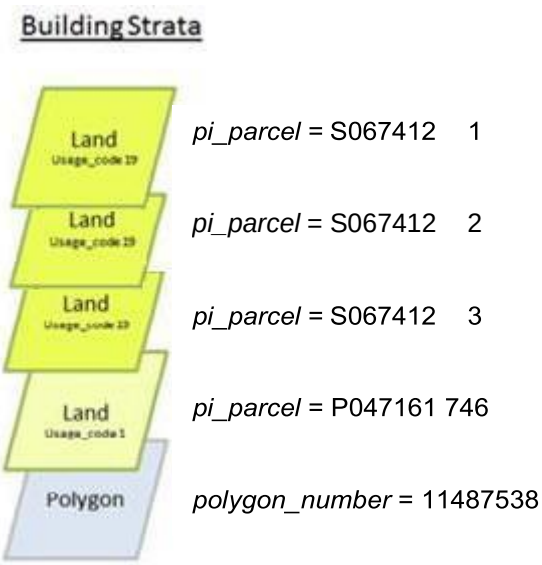


A single polygon with a single Freehold Lot (*pi_type* = 1).
Note: *usage_code* value of 1 = Freehold subdivision lot (*land_type* = FHOLD)

A single feature is created.

1.5.5.2 Example 3: Building Strata

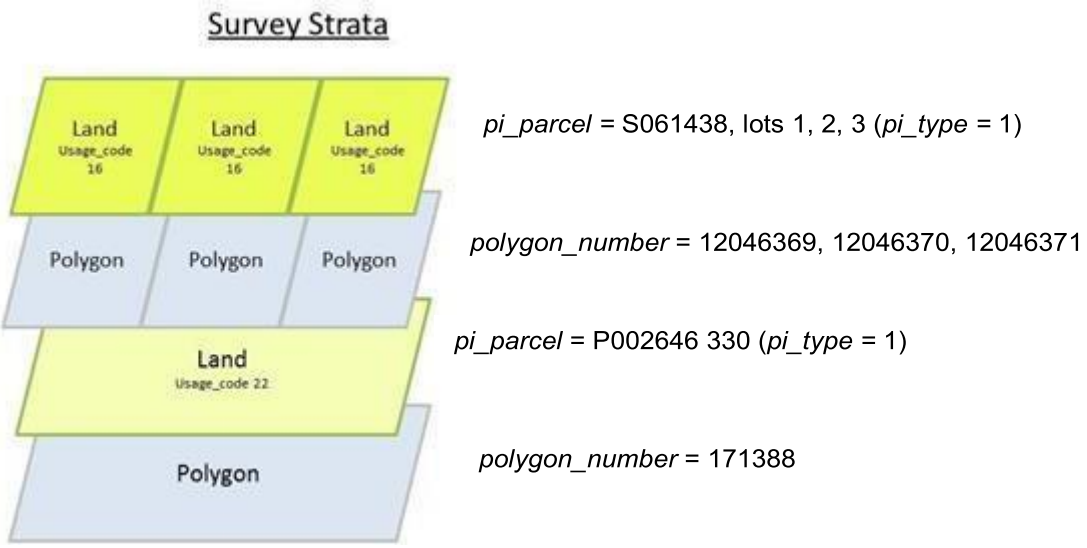
Four (4) polygon features are created with the same polygon number. One for the Strata Parent Lot



4 polygon features with the same *polygon_number.*
A single polygon feature for the freehold subdivision lot (*pi_type* = 1)
and
3 additional polygon features showing each of the Building Strata lots (pi_type = 1 also) attached to the same *polygon_number*.

(pi_parcel = P047161 746) and one for each Strata Lot

1.5.5.3 Example 4: Survey Strata

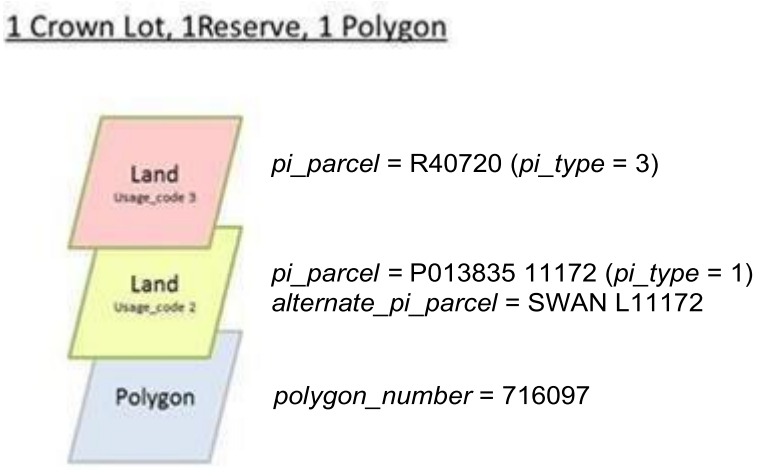


1 polygon created to show the extent of the “parent” lot of the Survey Strata.

3 separate polygons are also created for the extent of each Survey Strata lot.

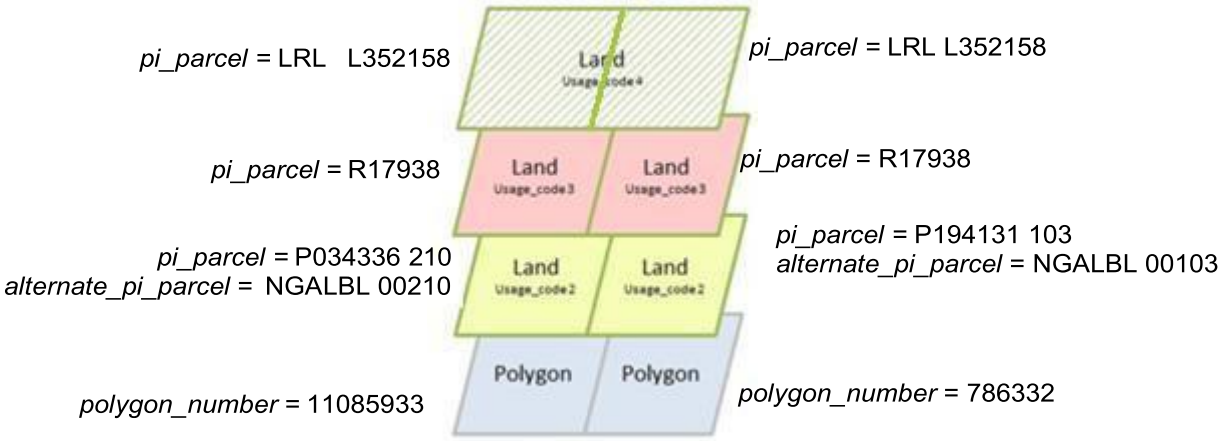
Four (4) separate features will be created. One will be for the parent strata lot and one feature for each survey strata lot. Including any Common Property lots where they exist.

1.5.5.4 Example 5: 1 Crown Lot, 1 Reserve and 1 Polygon



Two (2) polygon features are created here. One polygon feature for each of the *pi_type*s.

1.5.5.5 Example 6: 2 Crown Allotments, 2 Reserves and 1 Lease



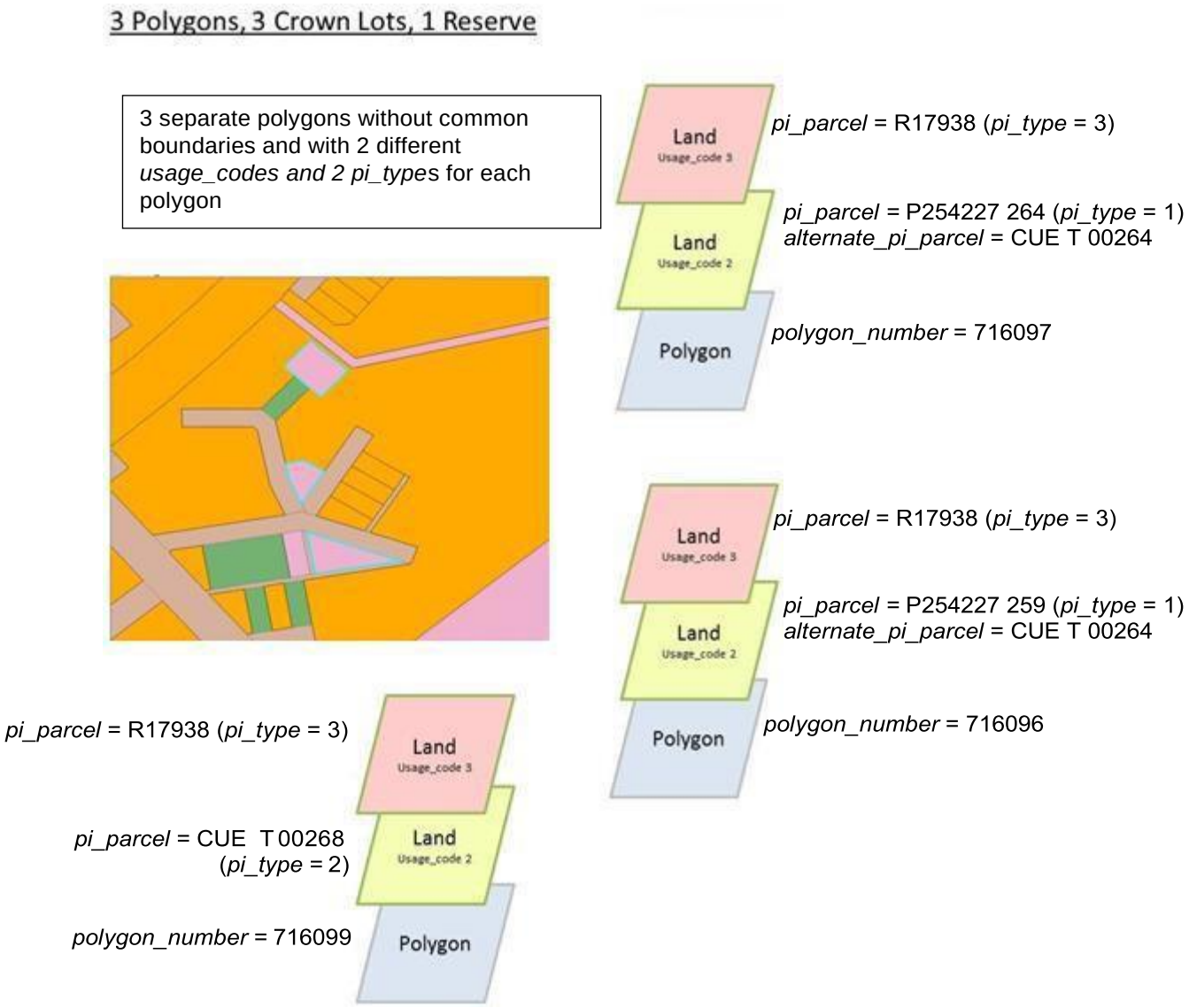
Six (6) separate features will be created. One for each pi_parcel (3) per polygon (2).

In the above example, the Lease whilst being 1 “land” comprises 2 polygons and therefore 2 polygon features and same pi_type and pi_parcel will be created. The Reserve is also treated the same way.

Consider a Pastoral Lease “land”, it may comprise many polygons but is considered 1 “land” and should be treated as such when interrogating the data. Polygons (of the same pi_parcel and same land_id) can be merged (using land_id) to form a single “land” multi-polygon record in the data, however the polygon_number to land_id relationship will be lost.

Also, in the above example, the Lease is the dominant land usage (usage_code = 4), the reserve is the second most dominant land usage (usage_code = 3) with the type 2 pi_parcel being the subservient land (usage_code = 2).

1.5.5.6 Example 7: 3 Polygons, 3 Crown Lots and 1 Reserve

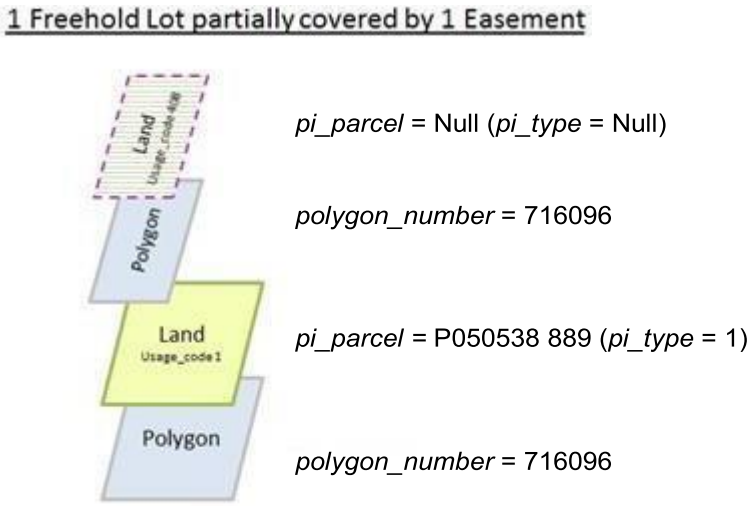


Six (6) separate features will be created for the three (3) highlighted geometries (– one for each Usage Code.

In the above example, the Reserve is the dominant land usage (usage_code = 3) with type 1 & 2 pi_parcels being the subservient land (usage_code = 2).

Note: The cadastral polygon dataset does not combine polygons of the same "land" (*pi_parcel*) into a single multi-polygon record. This presents a risk to users where it is not obvious that the extent of "land" comprises multiple non-contiguous polygons/lots. This occurs regularly within the dataset. Polygons (of the same *pi_parcel*) can be merged (using *land_id*) to form a single "land" multi-polygon record in the data to mitigate risk.

1.5.5.7 Example 8: 1 Freehold Lot partially covered by an Easement



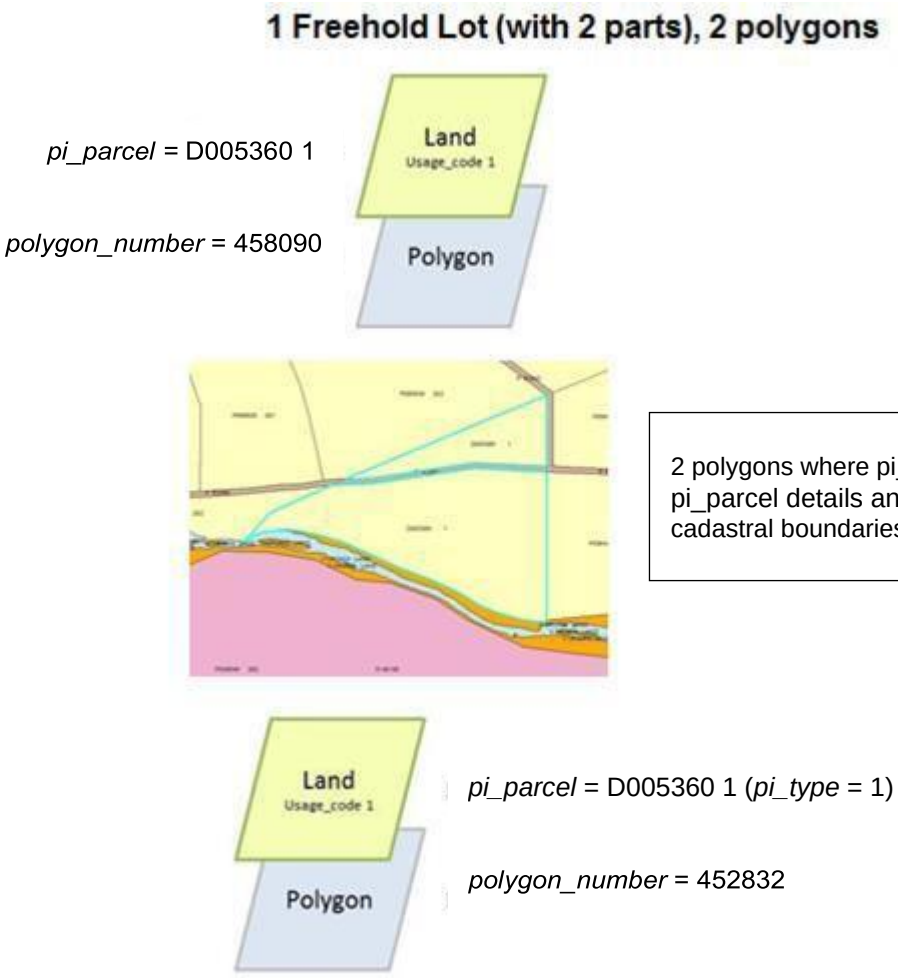
Easements are a Cadastral Family and comprise a separate polygon where the easement does not encumber the entire lot/land parcel SCDB data. In this example, two (2) features will be provided, one for each usage type. Note: SCDB rules allow easement polygons to overlap other cadastral polygons.

Note: Cadastral data should not be relied upon for the identification of all easements that affect land.

The SCDB does not contain all easements that are registered against land. For example, where an easement comprises the full extent of a single lot/land parcel, an individual easement polygon is not captured/generated. So in the above example, if the easement covered the full extent of the Land, a second polygon will not exist in the data and a user will not be able to identify that an easement is apparent.

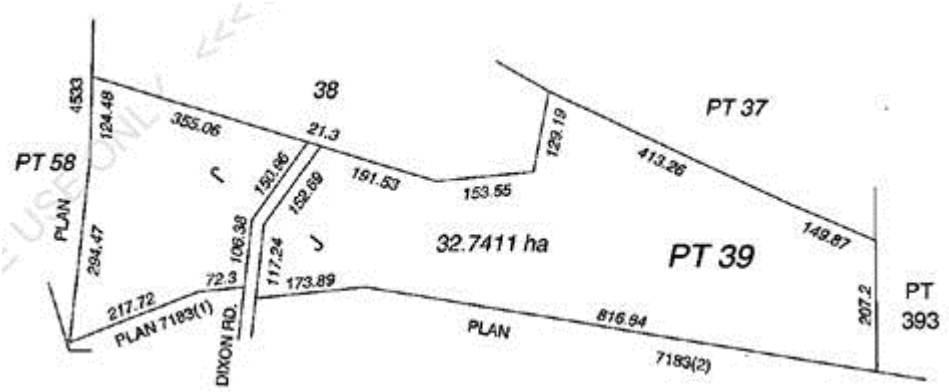
Easements that are not captured on a survey document are also not captured in the SCDB and may only registered on the Certificate of Title.

1.5.5.8 Example 9: 1 Freehold Lot, 2 Polygons (multi-part lots)



In this example, Lot 1 on D005360 is split by a road, each severance has the same pi_parcel but have different polygon_numbers. Two (2) features will be created with the same parcel identifier (lot on plan).

Note: The multi-part lot example above should not be confused with the records that have a *part_lot_indicator* in the data. Records that that have a *part_lot_indicator* = Y refers to those lots that have a portion of the lot remaining following subdivision. Please refer below.



Following subdivision, only part of lot 39 remains. There are approximately 1620 part lot records within the SCDB as at June 2018. Due to changed business rules, no new multi-part lots are created in the SCDB.

2 Data Dictionary - Cadastral Data Extract

The Data Dictionaries following have been provided within their spatial element as they have the same field attributes for the families within those elements.

2.1 Polygons

Description: Cadastral Polygons, Easement Polygons

Ref	Field Name - Shape File	Field Name (unabbreviated)	Field Type	Field Width	Description	Associated Attribute Values Y/N
1	fid	FID	Object ID		Feature identifier number	N
2	shape	SHAPE	Geometry		An area defined by one or more polygons or a sequence of connected points and lines. Individual polygon areas comprising the shape are not necessarily adjacent. The shape may change over time, with portions added or removed from the total shape, or amendments to polygons that make up the shape.	N
3	usage_code	USAGE CODE	Short Integer		Is a code describing the purpose of the area shape e.g. signifying a Cadastral Lot.	Y
4	render_nor	RENDER NORMAL	Text	5	Is a character string that contains components, such as the usage code, as required for drawing the polygon/area shape's colour and symbol type in a normal view.	N
5	pin	POLYGON NUMBER	Long Integer		Is the unique polygon identifier assigned at capture that provides a link between the spatial & tenure data.	N
6	centlat	LAND CENTROID	Double		Is the latitude coordinate for the centroid of the area	N

Ref	Field Name - Shape File	Field Name (unabbreviated)	Field Type	Field Width	Description	Associated Attribute Values Y/N
		LATITUDE			shape / polygon, in decimal degrees.	
7	centlong	LAND CENTROID LONGITUDE	Double		Is the longitude coordinate for the centroid of the area shape / polygon, in decimal degrees.	N
8	calc_area	CALCULATED AREA	Double	16	Is the area in square metres of the area shape as calculated by the system.	N
9	date_creat	DATE CREATED	date		Date the polygon was added to the system database.	N
10	date_modif	DATE MODIFIED	date		Is the date that the polygon was last modified. For a new polygon this will be the same as the date created.	N
11	legal_area	SURVEYED AREA	Double		Is the legal, keyed in or other derived area in square metres – not necessarily the same as the CALCULATED AREA. The method of derivation of area is given in AREA DERIVATION METHOD.	N
12	legal_deriv	AREA DERIVATION METHOD	text	2	Is the method of determining the AREA (not CALCULATED AREA) of the polygon or area shape.	Y
13	area_indic	AREA DERIVATION INDICATOR	text	1	Is a yes/no flag indicating whether or not the legal AREA (not CALCULATED AREA) uses derived, described or approximate data.	N
14	centroid_c	COORDINATE	Text	1	Is the method by which the centroid of the polygon is	N

Ref	Field Name - Shape File	Field Name (unabbreviated)	Field Type	Field Width	Description	Associated Attribute Values Y/N
		METHOD			derived	
15	date_retir	DATE RETIRED	Date		The date that the feature was retired and no longer exists in the current cadastre. Not populated	N
16	date_bound	DATE BOUNDARY MODIFIED	Date		The date that the feature was last modified. For a new polygon this will be the same as the date created	N
17	pityp	PITYPE	Text	1	A number describing the type of PI	Y
18	piparcel	PIPARCEL	Text	17	17 Char parcel identifier. The major part of the PI. There are 3 different PI formats identified by the PITYP field. These 3 different types of PI are referred to as i) survey lot, crown allotment, and miscellaneous	Y
19	land_type	LAND TYPE	Text	5	LAND refers to an area of land that Landgate has an interest in administering. As well as freehold and crown lots, it also covers other land of interest such as reserves, leases, road polygons, unallocated crown land and stock routes. Not all LAND records have a corresponding lot record. Land areas may consist of one or more polygons. Land areas may be overlapping. That is, a particular piece of land may be a crown lot as well as a timber reserve as well as a state forest area	Y
20	lot_number	LOT NUMBER	Long Integer	6	Lot number from the PIPARCEL.	N

2.2 Lines

Description: Cadastral Lines, Cadastral Control Lines, Easement Lines

Ref	Field Name - Shape File	Field Name (unabbreviated)	Field Type	Field Width	Description	Associated Attribute Values Y/N
1	fid	FID	Object ID		Feature identifier number	N
2	shape	SHAPE	Geometry		Shape Number	N
3	usage_code	USAGE CODE	Short Integer		Is a code describing the purpose of the line.	Y
4	render_nor	RENDER NORMAL	Text	5	Is a concatenated character string which contains components, such as the usage code and a surveyed/unsurveyed identifier, as required for drawing the line's colour and symbol type in a normal view. (same as usage code)	N
5	line_no	LINE NO	Long Integer		Is a system generated consecutive number that uniquely identifies a line.	N
6	startpnt	START POINT NUMBER	Long Integer		The point number from which a line starts.	N
7	endpnt	END POINT NUMBER	Long Integer		The point number at which a line ends.	N
8	consttype	CONSTRUCT TYPE	Text	1	Is a code that determines the physical construction characteristics of a line. It determines whether additional definition information (other than the end points) is required.	Y
9	surveyed_i	SURVEYED INDICATOR	Text	1	Is a single Y/N character indicating whether or not the line is surveyed.	N
10	distvalue	DISTANCE VALUE	Double	11	Is the distance in metres. For arcs it is the arc distance, for topographic strings it is the sum of the distances between consecutive string points.	N
11	distdatum	DISTANCE DATUM	Text	1	Is a character code describing the datum for the distance G = Ground Level S = Spheroid	N

Ref	Field Name - Shape File	Field Name (unabbreviated)	Field Type	Field Width	Description	Associated Attribute Values Y/N
12	disderiva	DISTANCE DERIVATION	Text	1	Numbers are the codes used in SCDB DISTTYP, characters are the codes used in CSD file.	Y
13	distaccura	DISTANCE ACCURACY	Long Integer		Is an estimate of the accuracy of the length of a line as given in DISTANCE VALUE expressed as a ratio. For example a distance accuracy of 1000 means that the line length is expected to be accurate to plus or minus 1/1000 of its given value.	N
14	spatialacc	PATIAL ACCURACY	Double	10	Is a thematic attribute – as a function of distance, scale, and end point coordinates.	N
15	date_creat	DATE CREATED	Date		Date the line was added to the system database.	N
16	date_modif	DATE MODIFIED	Date		Is the date that the line was last modified. For a new line this will be the same as the date created.	N
17	date_retir	DATE RETIRED	Date		Not polulated	N

2.3 Points

Description: Cadastral Points, Cadastral Control Points, Easement Points

Ref	Field Name - Shape File	Field Name (unabbreviated)	Field Type	Field Width	Description	Associated Attribute Values Y/N
1	fid	FID	Object ID		Feature identifier number	N
2	shape	SHAPE	Geometry		Shape Number	N
3	usage_code	USAGE CODE	Short Integer		Is a code describing the purpose of the point e.g. signifying a Cadastral Road Frontage.	Y
4	render_nor	RENDER NORMAL	Text	5	Is a concatenated character string which contains components, such as the usage code and a surveyed/unsurveyed identifier, as required for drawing the point's colour and symbol type in a normal view. Same as usage code.	N
5	point_no	POINT NUMBER	Long Integer		Is a system generated consecutive number that uniquely identifies a point.	N
6	latitude	LATITUDE	Double		Is the latitude coordinate in decimal degrees.	N
7	longitude	LONGITUDE	Double		Is the longitude coordinate in decimal degrees.	N
8	coord_calc	COORDINATE CALCULATION METHOD	Text	1	Is a code specifying how the point coordinates were created.	Y
9	surveyed_i	SURVEYED INDICATOR	Text	1	A yes/no flag indicating whether or not the point was surveyed.	N
10	point_acc	POINT ACCURACY	number	7	Is the perceived accuracy of a point expressed in metres. It determines how much influence the point has, or will have, on an	N

Ref	Field Name - Shape File	Field Name (unabbreviated)	Field Type	Field Width	Description	Associated Attribute Values Y/N
					adjustment.	
11	reduced_le	REDUCED LEVEL	number	7	Is the height of a point expressed as a vertical displacement in metres from Mean Sea Level (MSL).	N
12	name	NAME	Text	30	Is the optional name for a point.	N
13	date_creat	DATE CREATED	Date		Date the line was added to the system database.	N
14	date_modif	DATE MODIFIED	Date		Is the date that the line was last modified. For a new line this will be the same as the date created.	N
15	date_retir	DATE RETIRED	Date		Not populated	N

2.4 Community Title Scheme data (polygon) **NEW**

This dataset has been introduced as a result of the enactment of the Community Title Act 2018. The purpose of the dataset is to enable Landgate cadastre and tenure data users to understand the relationship between a lot within a community title scheme and the relevant scheme tier within the scheme that the lot belongs to, and also the relationship to the parent lot/scheme tier.

This data set will only contain records related to, and upon lodgement of, Community Title Schemes within Western Australia and is available upon request when ordering the cadastral polygon dataset from Landgate's Geospatial Team.

Ref	Field Name (shapefile)	Field Name	Field Type	Field Width	Description	Associated Lookup Values Y/N	Nullable
1	tier	tier	Integer	n/a	The community title scheme tier in which the lot resides	Y – allowed values: 1, 2, 3	N
2	surveytype	survey_type	String	2	Indicates the type of survey. DP = Deposited Plan, P = Plan, D = Diagram, SP = Strata Plan (Building and Survey Strata) Blank where pi_type = 3	N	N
3	survey_num	survey_number	Integer	n/a	The number assigned to the survey document. Blank where pi_type = 3	N	N
4	statuscode	survey_status_code	String	50	Previously 'Legal Status Code' Is a two-character alphabetic string that specifies which stage of the processing cycle the survey is in. The domain set includes statuses for Freehold, Crown and Strata.	Y	N
5	statusdate	survey_status_date	Date	n/a	The date that the survey status was last changed – represent the date the survey status changed to the current status	N	N
6	scheme_id	scheme_id	String	10	persistent system generated identifier comprising the Community Title Scheme plan type and scheme plan number	N	Y

Ref	Field Name (shapefile)	Field Name	Field Type	Field Width	Description	Associated Lookup Values Y/N	Nullable
7	schemename	scheme_name	String	100	Name of the scheme as endorsed on the plan, *null* for Tier 1 lots	N	Y
8	parentplan	parent_plan	String	10	persistent system generated identifier of the parent plan for the Community Title Scheme and is comprised of the plan type and plan number	N	Y
9	parlotpref	parent_lot_prefix	String	2	Only applicable where a lot prefix exists (NULL for type 3 pi_types)	N	Y
10	parlotnum	parent_lot_number	Integer	n/a	The lot number of the parent lot from which the current lot is created of the former land (parent) from which the current land was derived or (where a strata development is concerned) is contained within: 1 Lot on Plan 2 Crown Allotment 3 Other (multiple values)	N	Y
11	lot_prefix	lot_prefix	String	2	Only applicable where a lot prefix exists (NULL for type 3 pi_types)	N	Y
12	lot_number	lot_number	Integer	n/a	The number assigned to the survey document. Blank where pi_type = 3	N	Y
13	land_id	land_id	Integer	n/a	An unique system generated identifier assigned to land parcels of the same parcel identifier (pi_parcel) eg: 3 individual polygon records (each with different polygon_numbers) may have the same pi_parcel and will therefore have the same land_id	N	N
14	pi_type	pi_type	String	1	The type of parcel identifier for the land (legacy formatted data)	Y refer to Cadastre/Tenure Data Dictionaries	N

Ref	Field Name (shapefile)	Field Name	Field Type	Field Width	Description	Associated Lookup Values Y/N	Nullable
15	pi_parcel	pi_parcel	String	17	The land parcel identifier for the land comprising survey type, survey number and lot prefix, lot number and land name (legacy formatted data).	N	N
16	pin	polygon_number	Integer	n/a	System generated polygon identification number sourced from the Spatial Cadastral Database.	N	N

3 Attribute Values

3.1 Area Derivation

Is also the shape file field name/attribute known as “LEGAL_DERIV”.

Values	Description
UN	area unavailable
CO	by coordinates
AN	by angle and distance
AZ	by mid azimuth and distance
BR	by bearing and distance
KY	by key in
SM	by summed

3.2 Coordinate Method

A code describing what method was used to establish the horizontal coordinates of the point. Note that there is a numeric value in the DAT file and a character value in the Shape file (COORD_CALC)

Values	Description
1/D	Digitised coordinates captured by digitising analog map sheets
2/T	traverse adjustment coordinates captured by Angle/Distance input based on a known start point and or finish point
3/F	Transformation coordinates determined by shifting scaling or rotating to and or from a fixed set of points
4/K	numeric entry
5/G	graphical construction coordinates based on data created using Coordinate Geometry *(COGO) techniques
6/L	least square adjustment coordinates determined by defining, processing and adjusting a Least Square network.
7/P	precal

3.3 Distance Derivation

Number are the codes used in the SCDB DISTTYPE (refer below) and are in the form of characters in the Cadastral shape file.

Values	Description
M	Measured
C	calculated
V	derived
D	described
A	Approximate (e.g., Scale)

3.4 Land Type

Values	Description
OTHER	Surveyed land other than lots or reserves (i.e., PAW, ROW and Marine Parks)
STPLN	Strata (Building or vacant) Plan
EASMT	Easement
CROWN	Crown Allotment
ADMIN	Administrative Boundary
SSPLN	Survey Strata Lot
ROAD	Dedicated and undedicated, widenings, casement and closed roads
LEASE	Crown Lease
RESVE	Reserve
FHOLD	Freehold Lot
SVEXT	Survey Extent

3.5 Usage Codes

3.5.1 Polygon

The usage code along with the PITYPE and PIPARCEL assists in establishing the Code types.

Field Name: polygon usage_code		
Usage Code	**Description**	**PI Type and pi_parcel refer to section 3.9 Parcel Identifier (formatting)**
1	Transfer of Land Act (Type 1)	PI Type = 1
2	Land Act (Type 2) - Crown Allotment	PI Type = 2
3	Reserve (Type 3 – R)	PI Type = 3 and character set 1 of PI Parcel = 'R'
4	Lease (Type 3 – L)	PI Type = 3 and character set 1 of PI Parcel = 'L'
5	State Forest (Type 3 – F)	PI Type = 3 and character set 1 of PI Parcel = 'F'
6	Unallocated Crown Land (Type 3 – V)	PI Type = 3 and character set 1 of PI Parcel = 'V'
7	Closed Road (Type 3 – C)	PI Type = 3 and character set 1 of PI Parcel = 'C'
8	Drain Reserve (Type 3 – D)	PI Type = 3 and character set 1 of PI Parcel = 'D'
9	Timber Reserve (Type 3 – O)	PI Type = 3 and character set 1 of PI Parcel = 'O'
10	Railway (Type 3 – A)	PI Type = 3 and character set 1 of PI Parcel = 'A'
11	Water Feature (Type 3 – W)	PI Type = 3 and character set 1 of PI Parcel = 'W'
12	Tramway (Type 3 – T)	PI Type = 3 and character set 1 of PI Parcel = 'T'
13	Road Isolation (Type 3 – P)	PI Type = 3 and character set 1 of PI Parcel = 'P'
14	Marine Reserve (Type 3 – M)	PI Type = 3 and character set 1 of PI Parcel = 'M'
15	Stock Route (Type 3 – S)	PI Type = 3 and character set 1 of PI Parcel = 'X'
16	Surveyed Strata	LAND_TYPE = 'SSPLN'
17	Crown Grant in Trust	
19	Building Strata	LAND_TYPE = 'STPLN'
20	No Parcel Identifier	No PI
21	Easement Polygons	No PI
22	Parent of Survey Strata	
23	Carbon Right	
24	Tree Plantation	
25	Carbon Covenant - Burden	
26	Carbon Covenant - Benefit	
27	Contaminated Site	
28	Caveat	

Field Name: polygon usage_code		
Usage Code	**Description**	**PI Type and pi_parcel refer to section 3.9 Parcel Identifier (formatting)**
29	Easement - doc	
30	Easement - LAA 144	
31	Easement in Gross - LAA 195	
32	Easement Public Access LAA 195/196	
33	Easement - STA 5D	
34	Easement - TLA 136C	
35	Easement - TLA 167A	
36	Easement - P&D 167 Reg 5	
37	Easement - P&D 167 Reg 6	
38	Easement - P&D 167 Reg 7	
39	Easement - P&D 167 Reg 8	
40	Easement - P&D 167 Reg 9	
400	Freehold Lease	
401	Memorial	
402	Notification	
403	Profit a prendre	
404	Restrictive Covenant - Benefit	
405	Restrictive Covenant - Burden	
406	Covenant - LAA 15	
407	Easement - P&D 167 Reg 5	
408	Easement - P&D 167 Reg 6	
409	Easement - P&D 167 Reg 7	
410	Easement - P&D 167 Reg 8	
411	Easement - P&D 167 Reg 9	
412	Easement - P&D 167 Reg 33(a)	
413	Easement - P&D 167 Reg 33(b)	
414	Easement - P&D 167 Reg 33(c)	
415	Easement - P&D 167 Reg 33(d)	
416	Easement - P&D 167 Reg 33(e)	
New usages codes 417-440 incl below have been introduced following enactment of the Strata Titles Amendment Act 2018		
417	Easement – Benefit - STA 33	

Field Name: polygon usage_code		
Usage Code	**Description**	**PI Type and pi_parcel refer to section 3.9 Parcel Identifier (formatting)**
418	Easement - STA 33 Reg 31 - Vehicle Access	
420	Easement - 33 Reg 32 - Light & Air	
422	Easement - STA 33 Reg 33 - Party Wall	
426	Easement - STA 33 Reg 35 - Ped Access	
427	Easement - STA 33 Reg 36 - Easement in Gross	
428	Easement - STA 33 Reg 37 - Water supply	
429	Easement - STA 33 Reg 37 - Drainage	
430	Easement - STA 33 Reg 37 - Gas supply	
431	Easement - STA 33 Reg 37 - Overhead Elec	
432	Easement - STA 33 Reg 37 - UndGnd Elec	
433	Easement - STA 33 Reg 37 - Overhead Comms	
434	Easement - STA 33 Reg 37 - UndGnd Comms	
435	Easement - STA 33 Reg 37 - Sewerage	
436	Restrictive Covenant - STA 33 Reg 43 - RoW	
437	Restrictive Covenant - STA 33 Reg 44 - Land use	
438	Restrictive Covenant - STA 33 Reg 45 - Conserv	
439	Restrictive Covenant - STA 33 Reg 46 - Build Env	
440	Restrictive Covenant - STA 33 Reg 47 - Fire	

3.5.2 Lines

The table below shows the usage code attributes and description within the family types

Field Name: lines usage_code			
Family	**Usage Code**	**Description**	**Status I= Current L=Lodged**
Cadastral	1	Road Boundary	I and L
	2	Normal Boundary	I and L
	3	Water Boundary	I and L
	4	Group Boundary	I
	5	Common Boundary	I
	6	HWM Boundary	I
	7	LWM Boundary	I
	8	Nautical Boundary	I
	11	Network Construct	I and L
	12	Poly Tie Construct	I and L
	14	3D Normal	I
	15	3D Construct	I
	21	Interest (Easement) Boundary	I and L
	22	Interest (Easement) Construct	I and L
	23	Superline	I
Control	13	RO Construct	I
	43	Non Geodetic Connection	I
	44	Non Geodetic Precal	I
	46	Non Geodetic Connection GDA94	I
Mines	53	RO Construct Mining	I
	55	Mining District	I
	56	Mining Field	I
	60	Current Mining	I
	61	Superseded Mining Level 1	I
	62	Superseded Mining Level 2	I
	63	Superseded Mining Level 3	I
	64	Superseded Mining Level 4	I
	65	Superseded Mining Level 5	I

Field Name: lines usage_code			
Family	**Usage Code**	**Description**	**Status I= Current L=Lodged**
	66	Superseded Mining Level 6	I
	67	Superseded Mining Level 7	I
	68	Superseded Mining Level 8	I
	69	Superseded Mining Level 9	I
	70	Superseded Mining Level 10	I
	71	Superseded Mining Level 11	I
	72	Superseded Mining Level 12	I
	73	Superseded Mining Level 13	I
	74	Superseded Mining Level 14	I
	75	Superseded Mining Level 15	I
	76	Superseded Mining Level 16	I
	77	Superseded Mining Level 17	I
	78	Construct Mining	I
Admin Boundaries	100-148	Reserved for ADM Usages	
	149	LCMU (Native Title) ILUA	I
	150	LGA	I
	151	LGA Town-site	I
	152	Postal Locality	I
	153	Linked LGA	I
	154	LGA Ward	I
	155	PreGazetted LGA Ward	I
	160	MLA	I
	161	MLC	I
	165	State Border	I
	166	Land Division	I
	167	Land District	I
	168	Agricultural Area	I
	169	Suburban Area	I
	170	Estate Area	I
	171	Town-site Land Act	I

Field Name: lines usage_code			
Family	**Usage Code**	**Description**	**Status I= Current L=Lodged**
	172	Special Settlement Area	I
	173	River park Area	I
	174	Development Control Area	I
	175	State Forest	I
	176	Timber Reserve	I
	177	Marine Park	I
	178	Marine Nature Reserve	I
	179	Marine Management Area	I
	181	Surround	I
	182	Interest Surround	I
	183	Cancelled Surround	I
	184	Retired Surround	I
	186	Conversion	I
	187	Statutory Plan	I
	185	Water Control Area	I
	190	Port Authority	I
	191	Marine & Harbour Area	I
	192	Special Survey Area	I
	194	Railway Corridor	I
	195	Infrastructure Corridor	I
	196	LCMU (Native Title) NNTT	I
	197	LCMU (Native Title) Fed	I
	198	LCMU (Native Title) Determined	I
	199	Administrative Boundary Construct	I

3.5.3 Points

The table below shows the usage code attributes and description within the family types FOR POINTS DATA

Field Name: Points usage_code			
Family	**Usage Code**	**Description**	**Status I= Current L=Lodged**
Cadastral	1	Road Boundary	I and L
	2	Normal Boundary	I and L
	3	Water Boundary	I and L
	4	Group Boundary	I
	6	HWM Boundary	I
	7	LWM Boundary	I
	8	Nautical Boundary	I
	11	Network Construct	I and L
	12	Poly Tie Construct	I and L
	14	3D Normal	I
	21	Easement Boundary	I and L
	22	Easement Construct	I and L
Control	41	SSA Permanent Survey Mark	I
	42	SSA Permanent Control Mark	I
	43	Non Geodetic Connection	I
	44	Non Geodetic Temporary Control Mark	I
	45	Geodetic Standard Survey Mark	I
	46	Geodetic Bench Mark	I
	47	Geodetic Temporary Control Mark	I
	48	Geodetic Reference Mark	I
	49	Non Geodetic	I
Mines	60	General Mining	I
	61	Superseded Mining	I
	78	Construct Mining	I
Admin boundaries	150	Administration point	I

3.6 Survey Status Code

Relates to the Community Titles Scheme cadastral dataset only.

Surveys that have a Survey Status of APPROVED are considered Integrated / Current. Surveys with a Survey Status other than APPROVED are considered to still be in the Lodged stage of the Land Development Process.

The below new codes have resulted from a change to source data as a result of the introduction of the Community Titles Act 2018, also as a result of Landgate transitioning from legacy systems. Note: not all superseded codes will have a relatable new survey status code.

Status Code	Description
APPROVED_BUT_NOT_DEALT	Approved but not Dealt
APPROVED	Approved
CANCELLED	Cancelled
EXAMINED	Examined
EXAMINED_AND_SENT_FOR_PLANNING_APPROVAL	Examined and Sent for planning approval
EXPIRED	Expired
INDEX_PLAN	Index Plan
LAPSED	Lapsed
LODGED_SUBJECT_TO_EXAMINATION	Lodged, Subject to Examination
PLANNING_APPROVED	Planning Approved
NULL_AND_VOID	Null and Void
IN_ORDER_FOR_DEALINGS	In Order for Dealings
STOPPED	Stopped
SURVEY_CORRECT	Survey Correct, refer to survey advice officer
SURVEY_ASSIGNED_FOR_EXAMINATION	Survey Assigned for Examination
TERMINATED	Terminated
UNKNOWN	Unknown at take-up (survey missing)
TRANSFERRED_TO_LANDS_SURVEYS	Transferred to Lands/Surveys
UNREGISTERED	Unregistered

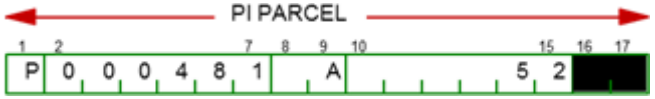
4 Parcel Identifiers (pi_parcel)

pi_parcel is the major part of the parcel identifier, is machine readable and is formatted to preserve legacy system compatibility. It is particularly useful when dealing with and understanding Type 2 and Type 3 parcel identifiers. There are 3 different Parcel Identifier formats identified by the pi_type field. These 3 different types of Parcel Identifier are referred to as (and described below):

- Parcel Identifier Type 1 = Lot on Survey/Plan
- Parcel Identifier Type 2 = Crown Allotment
- Parcel Identifier Type 3 = Miscellaneous.

These are further described below.

4.1 PI TYPE 1 - pi_parcel formatting (Lot on Survey / Plan)



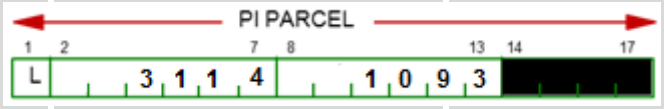
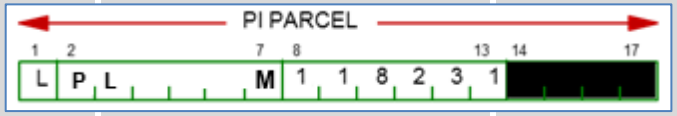
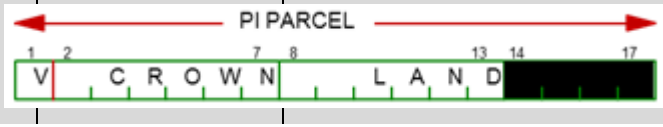
Character set 1	Character set 2-7	Character set 8-9	Character set 10-15	Character set 16-17
Survey Type Identifier *P = Plan* *D = Diagram* *S = Strata Plan*	**Survey Number** *A number applied to a survey document which when used with the Survey Type provides a unique reference number. This field is numeric, right-justified.*	**Survey Section** *(also lot_prefix)* *A letter or number identifying the section of the survey. This field is alpha-numeric, right justified and blank filled. It is usually blank*	**Lot Number** *A lot number identifies a land parcel on a survey. This field is alpha-numeric, right justified and blank filled. All new lots will be numeric but in the past various alpha and alpha-numeric lot identifiers were created. Many of these lots are still live and will remain that way so must be allowed for. There are lots in existence with identifiers such as 101, A, 3/2 etc*	BLANK - reserved

4.2 PI TYPE 2 - pi_parcel formatting (Crown Allotment)

Character set 1-5	Character set 6	Character set 7-8	Character set 9-13	Character set 14	Character set 15	Character set 16-17
Crown Allotment Code *The abbreviation for the name of the land district, town site, agricultural area, estate or suburban area. This field is alpha, left justified*	**Crown Allotment Type** T = LOT / TOWN LOT L = LOCATION S = SUBURBAN LOT E = ESTATE LOT A = AGRICULTURAL AREA LOT	**Prefix** *The alpha part of the crown allotment identifier which precedes a number or which comprises a totally alpha lot identifier.*	**Crown Allotment Number** *The numeric part of the crown allotment id. It is numeric, right-justified and zero filled*	**Crown Allotment Fraction** *Some crown allotments contain fractions. These have been coded so that only one character is required. The field contains one of the following values:* *blank-no fraction* *1-1/4* *2-1/2* *3-3/4*	**Crown Allotment Suffix** *Any alpha part of the crown allotment identifier which follows the number. This field is usually blank*	BLANK - reserved

4.3 PI TYPE 3 - pi_parcel formatting (Miscellaneous)

A land parcel which cannot be assigned a survey lot or crown allotment PI will be identified by one of the miscellaneous forms of identification which is usually the dominant land tenure type.

PI Type 3 Miscellaneous	Character set 1	Character set 2-7	Character set 8-13	Character set 14-17
Lease (Land Act 1933) *Allocated prior to 30th March 1998 (many of these lease types no longer exist)* 398 and 3114-Pastoral Lease *example* 37-Leased to Commonwealth 32- Leased to Government Agencies, Local Government etc. 332-Special Leases over Reserves. 333A-Miscellaneous Leases such as:- • Exchange of Land • Crown Grants in trust 338-Sold under Licence by Auction 341-Sold under Licence over the Counter 345-Leased/Sold to Homes west under licence 345A-Sold under Licence 345B-Sold under Licence 347, 353 and 386 - Conditional Purchase Leases (Agricultural) 3116 and 3117 (Special Leases) 3117AA-Conversion to freehold.	***L***	*Legislation/section under which the Crown lease was granted – defines lease type and is right justified.* *Eg: 3 = Land Act 1933* *114 = relevant section of the act* 	*Lease / License number*	*Blank - reserved*
Lease (Land Administration Act 1997) *Allocated post 30th March 1998* PL = Pastoral Lease *example* RL = Reserve Lease RO = Road Lease GE = General Lease PU = Purchase Lease AB = Aboriginal Lease	***L***	*Lease type and license/lease document prefix* 	*Lease / License document number*	*Blank - reserved*

PI Type 3 Miscellaneous cont…	Character set 1	Character set 2-7	Character set 8-13	Character set 14-17
Lease (Land Administration Act 1997) cont.. SU = Subdivisional Lease GO = Government Agency Lease AC = Acquisition Lease PP = Profit 'A' Prendre OP = Option to Purchase Granted LI = Licences OL = Option to Lease Granted				
Other Miscellaneous Types: R = Crown Reserve - *example*	*R*	*Reserve number*	*Blank - reserved*	*Blank - reserved*
M = Marine Park O = Timber Reserve A = Railway C = Closed Road D = Drain Reserve P = Road S = Stock Route T = Tram Way X = Unknown W = Water				
V = V Crown Land (UCL) – *example*	*V*	*Alpha character description for the first part of the identifier and is right justified.*	*Alpha character description for the second part of the identifier (may be blank), is right justified and may be abbreviated.*	*Blank - reserved*