



Buildings

Release Report

September 2025

Geoscape

30 September 2025

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1 Overview

Buildings is a digital dataset representing buildings across Australia. The Buildings dataset has relationships with the G-NAF, Cadastre, Property and Administrative Boundaries products produced by Geoscape Australia.

Data quality and potential capture timelines will vary across Australia based on three categories. Each category has been developed based on several factors defined by the population distribution (categorised based on population size), industrial/commercial activities, the probability of natural events (e.g. flooding) and the image source.

- Urban (satellite source) - areas with a population greater than 200, or with significant industrial/commercial activity in a visual assessment, digitised from satellite imagery
- Urban (aerial source) - areas with a population greater than 200, or with significant industrial/commercial activity in a visual assessment, digitised from aerial imagery
- Rural – all other areas

Geoscape welcomes your feedback on the Buildings product. We also publish regular product development updates on our website (www.geoscape.com.au).

1.1 Release Summary

This product was released to customers on **30 September 2025** with data extracted on 25 September 2025.

- This release is a full national data population for Version 3.3 of the Buildings product, described by the Buildings Product Guide v3.3.

Any issues that have been identified for this release are described in the Issues section.

This release includes updates for the areas listed in the table below.

Table 1: Locations of updated areas by State

State	Location	Urban Area (km2)
ACT	Australian Capital Territory	498
NSW	Bathurst Regional Council	391
NSW	Burwood Council	5
NSW	City of Canada Bay Council	15
NSW	Council of the City of Sydney	15
NSW	Inner West Council	17
NSW	Ku-ring-gai Council	1
NSW	Lane Cove Municipal Council	10
NSW	Mosman Municipal Council	9
NSW	North Sydney Council	10
NSW	Northern Beaches Council	7
NSW	Oberon Council	16
NSW	Queanbeyan-Palerang Regional Council	76
NSW	Ryde City Council	14
NSW	The Council of the Municipality of Hunters Hill	6
NSW	Unincorporated - Sydney Harbour Area	27

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Table 1 – continued from previous page

State	Location	Urban Area (km2)
NSW	Waverley Council	5
NSW	Willoughby City Council	15
NSW	Woollahra Municipal Council	12
NSW	Yass Valley Council	2
SA	Adelaide Hills Council	4
SA	Adelaide Plains Council	50
SA	Campbelltown City Council	24
SA	City of Adelaide	15
SA	City of Burnside	25
SA	City of Charles Sturt	55
SA	City of Holdfast Bay	14
SA	City of Marion	56
SA	City of Mitcham	55
SA	City of Onkaparinga	179
SA	City of Playford	105
SA	City of Port Adelaide Enfield	92
SA	City of Prospect	8
SA	City of Salisbury	104
SA	City of Tea Tree Gully	66
SA	City of Unley	14
SA	City of West Torrens	37
SA	Light Regional Council	33
SA	The Barossa Council	5
SA	The City of Norwood Payneham and St Peters	15
SA	The Corporation of the Town of Walkerville	4
SA	Town of Gawler	40
VIC	Banyule City	52
VIC	Bayside City	30
VIC	Cardinia Shire	80
VIC	Casey City	282
VIC	Darebin City	41
VIC	Frankston City	129
VIC	Glen Eira City	12
VIC	Greater Dandenong City	129
VIC	Hobsons Bay City	2
VIC	Hume City	40
VIC	Kingston City	91
VIC	Knox City	67
VIC	Macedon Ranges Shire	16
VIC	Manningham City	44
VIC	Maroondah City	37
VIC	Melton City	167
VIC	Merri-Bek City	22
VIC	Monash City	19
VIC	Moorabool Shire	39
VIC	Mornington Peninsula Shire	294
VIC	Nillumbik Shire	105
VIC	Warrnambool City	39
VIC	Whittlesea City	149
VIC	Wyndham City	57
VIC	Yarra Ranges Shire	241
WA	City of Armadale	142
WA	City of Bayswater	35
WA	City of Belmont	40
WA	City of Canning	65
WA	City of Cockburn	111
WA	City of Fremantle	20
WA	City of Gosnells	126
WA	City of Kalamunda	108
WA	City of Mandurah	125
WA	City of Melville	53
WA	City of Nedlands	20
WA	City of Perth	20
WA	City of Rockingham	48
WA	City of South Perth	20
WA	City of Stirling	44
WA	City of Subiaco	6
WA	City of Swan	187
WA	City of Vincent	11
WA	City of Wanneroo	467

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State	Location	Urban Area (km2)
WA	Shire of Chittering	34
WA	Shire of Gingin	47
WA	Shire of Mundaring	28
WA	Shire of Murray	446
WA	Shire of Peppermint Grove	1
WA	Shire of Serpentine-Jarrahdale	339
WA	Shire of Waroona	11
WA	Town of Bassendean	10
WA	Town of Cambridge	19
WA	Town of Claremont	5
WA	Town of Cottesloe	4
WA	Town of East Fremantle	4
WA	Town of Mosman Park	4
WA	Town of Victoria Park	18
	Total	6,953

Spatial files of the updated areas are available upon request via support@geoscape.com.au.

2 Change Notifications

2.1 National Buildings 4.0 - Update and Sample Data

Geoscape’s Buildings product is evolving into a new and enhanced package called “National Buildings”, scheduled for release in March 2026.

This evolution brings improved attribution, better integration capabilities, and a stronger foundation for delivering future innovation in building insights.

National Buildings will be packaged with a base “Buildings” dataset, with additional aspatial “Insights Packs” available that are designed to provide specific understanding or knowledge about a particular topic/theme for an industry or use-case.

Supporting Your Transition

Geoscape is committed to supporting current customers through this transition. Over the coming months, we’ll be in touch to:

- share information sheets outlining the key changes,
- discuss change impacts to help you prepare, and
- provide guidance to support a smooth changeover.

If you would like more information, please contact Geoscape Support via: support@geoscape.com.au.

Sample Data

To facilitate early transition planning, sample data is now accessible through the Geoscape Hub “Demos” section, specifically under “National Buildings (Chatswood)”. You can review the sample data at: <https://hub.geoscape.com.au/demos/>.

The demo offers a visual representation of Geoscape data for the Chatswood area and includes a “DOWNLOAD SAMPLE” button. This allows users to obtain a sample of buildings data formatted according to the updated packaging and data model. The sample can be used to begin preparations, such as reviewing schema changes or updating data ingestion pipelines.

The sample is “Sample Data” as defined and governed by our [Geoscape Terms of Use](#) (see clause 29 ‘Sample Data Licence’), which means you may only use it for evaluation, not for business or commercial purposes. However, for current Buildings customers, we will extend the evaluation period to up to six months (instead of one month under clause 29.3(a)).



The sample package contains five zipped files:

- National Buildings (Base)
- Building Height - Insight Pack
- Building Roof - Insight Pack
- Building Solar – Insight Pack
- Address Pool – Insight Pack

The ZIP files are structured in the same way National Buildings data will be delivered from the March 2026 release.

The sample data is described within documents that are available for download within the “Product Documentation” section.

2.2 ‘National’ Branding

Over the coming months, Geoscape products will transition to ‘National’ branding, reflecting our focus on a smarter, safer and more productive Australia and our role in the national interest.

3 Issues

3.1 New Issues

No new issues to note.

3.2 Resolved Issues

WA Buildings Overrepresentation

There were source data issues in the June 2025 release for two areas in Western Australia that caused incorrect inflation in the number of buildings represented. We have applied fixes to these areas which has resulted in a ~4% count decrease in WA building records.

Primary Roof Material Improvements

We have been continually improving our assignment of primary roof material. There have been valid increases of approximately 200,000 records in the Tile classification due to improvements in the assessment methodology that has caused previously captured buildings to change from another classification to Tile.

Roof Slope, Type and Shape Improvements

We have been continually improving our assignment of roof slope/type/shape. There have been valid decreases of approximately 500,000 records in the classification of Flat (roof_type), Flat (roof_shape) and 0.00 (roof_slope) roofs due to improvements in the assessment methodology that has caused previously captured buildings to change from flat to another classification.

3.3 Known Issues

Incorrect metal primary_roof_material assignment

In the update areas for the September 2024 release, we noticed that a large number of buildings have been classified with a primary_roof_material of 'Metal'. On investigation, it was identified that this classification was not correct in many cases and so the primary_roof_material values were rolled back to the previous (June 2024) values where possible. We are looking to update these areas in an upcoming release to resolve remaining mis-classification and are working with our data supplier to improve this classification for future supplies.

Incorrect roof_type, roof_shape and roof_slope assignment

In the update areas for the September 2024 release, we noticed that a large number of buildings have been classified with a roof_type and roof shape of 'Flat' and roof_slope of '0'. On investigation, it was identified that this classification was not correct in many cases and so these values were rolled back to the previous (June 2024) values where possible. We are looking to update these areas in an upcoming release to resolve remaining mis-classification and are working with our data supplier to improve this classification for future supplies.

Centroid not within building polygon

When mapping the building centroid from the centroid_longitude and centroid_latitude there will be occurrences where the point does not fall inside the building geometry. This occurs because of the complexity of the building geometry and impacts < 0.1% of buildings. A fix for this issue will be investigated for a future release.

Swimming_pool_adjacent incorrectly 'null'

Some records containing attribution for swimming_pool_review_date also contain 'null' attribution for swimming pool adjacent where the allowed values are 'no' or 'yes'. This affects < 0.25% of buildings.

Duplication of buildings between update areas

New and updated buildings are captured within Areas of Interest (AOIs). Buildings that intersect two adjacent AOIs are duplicated. This issue affects approximately 1,800 buildings.

Duplicate building polygons

There are 8,417 buildings with duplicate geometries, resulting in 8,427 additional building polygons present. A fix for this issue will be investigated for a future release.

Roof colour assignment

There is an over classification of light roof colours primarily in the Melbourne region. Advances in processing has improved this issue in recent releases.

Building position offset from imagery

There is evidence of buildings having a horizontal shift of approximately 0.5m in the NSW suburbs of Parramatta and the Dee Why area. This has occurred where the new shift to the digital elevation model has not worked as intended. As we continue to refine the aerial derived building processes, we'll seek to resolve this issue.

Over-capture of metal roof material in aerial supplies

In the June 2022 release, we noticed that there was an over-capture of Metal roof type in the aerial capture. This occurred primarily for residential buildings. In some areas of the aerial capture (e.g. Perth and Cairns), Metal classification was actually improved overall in relation to the previous satellite capture (satellite previously incorrectly classified Metal roofs as Tile). We are working with our production partners to improve the accuracy of the roof_material attribute, which can be affected by image smoothing, causing Tile roofs to be incorrectly classified as Metal.

4 Future Considerations

This section outlines enhancements or changes under consideration, but not planned into a specific release. For further details on future initiatives, please contact Geoscape Support.

4.1 Legacy 'CAD' naming

The building_cad table contains a field that is called 'cad_pid', while the Cadastre product has an attribute called 'cadastre_pid'. We have input the 'cadastre_pid' values into this 'cad_pid' field to not affect customer processes with attribute name changes. In addition, the table name of 'building_cad' no longer matches the Cadastre product. There is no current plan to change either the 'building_cad' table name or 'cad_pid' field name.

4.2 Additional Total Floor Area attribute

Geoscape intends to introduce a new total_floor_area attribute to a future release of the Geoscape Buildings product. This attribute will provide the estimated sum of floor space across all levels of a building. At the time of the addition of this new attribute there will be a minor increment to the Geoscape Buildings product version.

5 Annex A – Release Counts

For the buildings table the additional, retired, updated and total building counts, as well as the percent change to the previous release have been listed in the table below. For the aspatial tables the total record counts have been listed.

TABLE	STATISTIC	FLAG	ACT	NSW	NT	OT	QLD	SA	TAS	VIC	WA	TOTAL
buildings	Additional		6,503	14,747	0	0	0	47,982	0	100,437	20,932	190,601
	Retired		5,644	11,922	0	0	0	34,230	0	54,754	119,830	226,380
	Updated		244,643	311,814	496	0	15,579	952,886	5,611	1,477,894	663,391	3,672,314
	Total		252,523	5,398,533	166,891	449	3,825,857	1,802,976	598,595	5,088,787	2,287,360	19,421,971
	% Change		0.34%	0.05%	0.00%	0.00%	0.00%	0.77%	0.00%	0.91%	-4.14%	-0.18%
	Solar Panel	Yes		55,080	711,970	18,904	8	736,680	315,388	35,511	635,722	420,574
	No		196,125	3,799,749	115,220	329	2,500,918	1,135,891	405,608	3,677,988	1,480,576	13,312,404
	Swimming Pool Adjacent	Yes	20,812	759,743	46,096	0	795,794	145,515	10,058	342,592	371,128	2,491,738
		No	230,447	3,761,838	87,434	355	2,449,285	1,304,204	433,909	3,984,613	1,532,906	13,784,991
building_cad			300,681	12,477,244	397,903	554	5,769,470	2,312,018	727,894	9,673,077	4,566,471	36,225,312
building_property			261,538	12,719,762	322,769	0	5,759,066	2,221,019	630,491	11,854,838	2,347,204	36,116,687
building_address			930,736	11,971,465	322,853	151	10,141,091	2,929,873	738,919	8,858,200	4,034,978	39,928,266

References

[Aerometrex, 2023] Aerometrex. Aerial imagery. Raster Dataset, 2023. URL: <https://aerometrex.com.au/>.

[Geoscape, 2023] Geoscape. Local government areas 2.0. 2023. URL: https://docs.geoscape.com.au/projects/lga_guide/en/stable/index.html.