

## PRODUCT DESCRIPTION

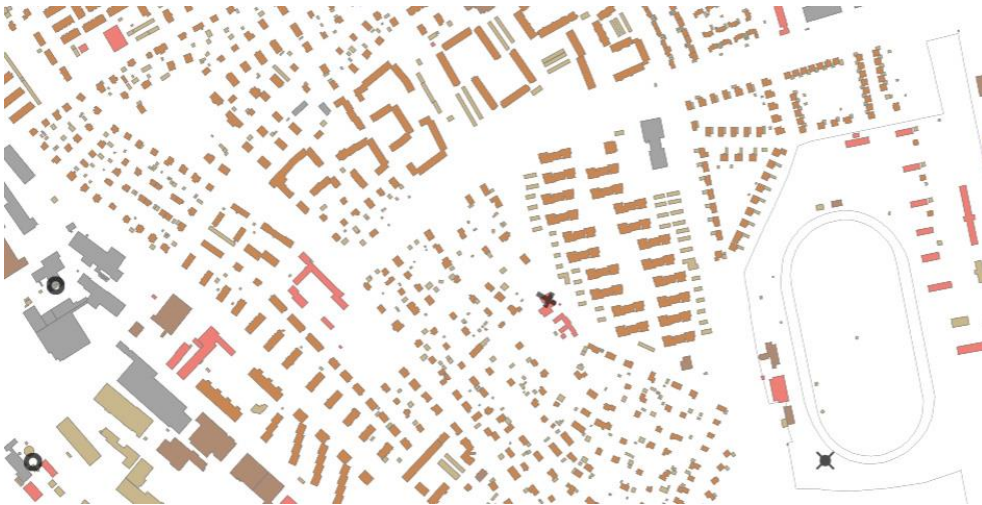
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# Building View service, vector tiles

DOCUMENT VERSION: 1.3

CONCERNING THE INTERFACE VERSION OF THE SERVICE 1.0

*Figure 1. Section from Building View service, vector tiles.*



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## **I General description**

### **1.1 Contents**

Building View service, vector tiles is a view service consisting of Lantmäteriet's most detailed topographic data for buildings and facility areas.

When calling Building View service, vector tiles transmit data in the form of vector data divided into a grid of tiles.

### **1.2 Geographic coverage**

Nationwide.

### **1.3 Coordinate system**

Plane: SWEREF 99 TM and Web Mercator.

## **2 Quality description**

### **2.1 Purpose and utility**

The product is primarily intended for users developing various types of applications and solutions for the web. With view services like vector tiles, there is the opportunity to access information about objects, attributes, and to style data according to personal preferences or by using Lantmäteriet's proposed appearance.

For buildings, attributes are included that allow integration possibilities for those who have agreements for products with information from the Real Property Register, such as Lantmäteriet's direct access services for property information.

### **2.2 Data capture**

#### **2.2.1 LINEAGE**

##### **BUILDINGS**

Outside municipalities' area of responsibility, building geometry has mainly been collected through photogrammetric detailed measurement by Lantmäteriet and external actors in the construction phase. Updating has been managed by Lantmäteriet. Inside the municipalities' area of responsibility, building geometries have been collected by the municipality and delivered to Lantmäteriet, which has then processed and stored the information. Data from municipalities may have different origins. Geodetic and photogrammetric detailed measurement are common methods, but other measurement methods also occur.

The responsibility for updating the geometries of buildings is delimited by the established areas of responsibility. The areas of responsibility are listed in an appendix to each municipality's agreement. Within these areas, the

municipalities are responsible for the updating, while Lantmäteriet is responsible for updating outside of these areas. Updates by Lantmäteriet take place at periodic intervals that comply with the [image provision program](#). Municipalities can also make updates outside the areas of their responsibility.

#### BUILDING FACILITY LINES

Collection and updating is performed by Lantmäteriet through photogrammetric measurements in aerial photographs as well as through collaboration agreements with the municipalities.

The facility area is presented as a surface object where the outer boundary is placed along the edge of the area, for example, in the fence.

#### OTHER BUILDING STRUCTURES

Collection and updating are conducted by Lantmäteriet through photogrammetric measurements in aerial images.

## 2.3 Maintenance

The update of topographical objects is conducted partly in-house and partly in collaboration with the authorities or organisations responsible for each type of information.

### 2.3.1 MAINTENANCE FREQUENCY

#### BUILDINGS

Buildings outside the municipal areas of responsibility for building geometry are updated according to the [image provision program](#).

Within the municipalities' area of responsibility, data is delivered to Lantmäteriet at least twice a year according to the ABT agreement. Some municipalities deliver more frequently. Municipalities that have switched to [service-based updating](#) of buildings can update continuously via their own business system.

#### OTHER BUILDING STRUCTURES AND FACILITY AREAS

The update intervals follow the [image provision program](#).

## 2.4 Data quality

### 2.4.1 COMPLETENESS

Completeness is related to the selection for each object type. There are also certain generalization rules for the information, which means that not all objects are represented on the map.

### 2.4.2 LOGICAL CONSISTENCY

The structure of point objects, line objects, and area objects has such requirements for geometric positions that it should be possible to easily create topology.

When storing objects in the database at Lantmäteriet, it is checked that the objects follow the geometric and topological rules that are in place, and that the information corresponds to OGC's (Open Geospatial Consortium) requirements for geometries. Value ranges and object types are also checked for validity before being stored in the database.

#### **2.4.3 THEMATIC ACCURACY**

The process for thematic classification of topographic data is reviewed during field studies. This involves discussing classification based on the interpreter's aerial images compared to reality.

#### **2.4.4 POSITIONAL UNCERTAINTY**

Positional uncertainty describes how well a given position corresponds to the actual position in the terrain for the object that has been positioned in relation to the principal coordinate system.

Geometrical requirements for positional uncertainty depend on the objects' distinctness within a geographically limited area. Concrete objects have higher requirements than objects with diffuse boundaries in aerial image interpretation.

### **3 Layout and plotting of data**

#### **3.1 Plotting in different scales**

The information is displayed up to a scale of 1:10,000.

#### **3.2 Description of presentation styles**

The view services have a styling mechanism applied at the client, which means that a user can change the appearance of the map, for example, switching between a day and night mode or highlighting different thematic conditions in the visualized data.

Lantmäteriet has developed a styling that closely resembles the one used for other view services to the greatest extent possible. The styling is adapted to Web Mercator (works for OpenLayers and Mapbox) and SWEREF 99 TM (works for OpenLayers), see Technical Description. As a user, it is your choice to use this style or create your own. Connecting the data received through the service with the styling in the style file is done in the client using the product. Since this can be done in many different ways, it is not a support service that Lantmäteriet can provide.

## 4 Layer description and code list

### 4.1 Structures

#### 4.1.1 BUILDING (POLYGON)

##### BUILDING (POLYGON)

*Table 1 Layer description and code list for building, polygon.*

Object type	Object type number	Definition	Description	Comment
Residential	2061	building primarily used for leisure or permanent accommodation	Leisure or permanent accommodation.	Mapped for all buildings larger than 15 square metres. Buildings smaller than 15 square meters may also be included.
Industrial	2062	building primarily used for manufacturing products and processing of raw materials		Mapped for all buildings larger than 15 square metres. Buildings smaller than 15 square meters may also be included.
Public	2063	building primarily used for citizens' activities in community life		Mapped for all buildings larger than 15 square metres. Buildings smaller than 15 square meters may also be included.
Commercial	2064	building primarily used for commercial purposes	More than 50% of the building should be used for other than residences, such as hotels, offices, retail, restaurants, or car park.	Mapped for all buildings larger than 15 square metres. Buildings smaller than 15 square meters may also be included.
Agricultural	2065	building primarily used for agricultural, forestry, or comparable industry		Mapped for all buildings larger than 15 square metres. Buildings smaller than 15 square meters may also be included.
Accessory building	2066	building that belongs to a detached house	Includes, for example shed, garage, carports, cisterns, storage room, boathouses, or garden sheds. Buildings without walls may be included.	Mapped for all buildings larger than 15 square metres. Buildings smaller than 15 square meters may also be included.

Object type	Object type number	Definition	Description	Comment
Other building	2067	building whose purpose is <u>not</u> Residential, Industrial, Public, Commercial, Agricultural or Accessory building	Includes, for example, allotment cottage, lean-to, Sami cots, tower, windmill, bell tower, lighthouse, detached roof of durable construction.	Mapped for all buildings larger than 15 square metres. Buildings smaller than 15 square metres may also be included.

## SET OF ATTRIBUTES FOR BUILDING

Table 2. Set of attributes for (Building (polygon).

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	<p>UUID is set when a new object is created in the system and is not changed thereafter.</p> <p>UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.</p> <p>It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.</p>
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	indicates the type of building	Range of values for valid values.
byggnadsnamn	Text	name of building	
huvudbyggnad	Text	refers to a building, in a larger complex of buildings, on a property as the main building	<p>Used on buildings where there is a need to highlight that a main building exists, primarily for presentation purpose.</p> <p>Value range: Ja/Nej (Yes/No)</p>
andamal	Text	main purpose	Indicates the main purpose for the entire building.

#### 4.1.2 BUILDING, LINE

##### BUILDING FACILITY LINE

Table 3. Layer description and code list for Building facility line

Object type	Object type number	Definition	Description	Comment
Reindeer fence	1980	fence intended to lead reindeer between different pastures and to collection points		Presented completely apart from capture fences shorter than 200 metres at <i>reindeer enclosures</i> .
Cable traffic	1978	wire-borne transportation system with carriages, baskets, loops, sticks or harness that run above ground level	Cable cars and ski lifts.	Mapped if it is operating and at least 200 m long. Also used for funicular aerial tramways, gondolas chair lift, drag lift or zipline.

##### SET OF ATTRIBUTES FOR BUILDING FACILITY LINE

Table 4. Set of attributes for Building facility line.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	<p>UUID is set when a new object is created in the system and is not changed thereafter.</p> <p>UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.</p> <p>It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.</p>
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	indicates the type of building facility line.	Range of values for valid values.



### 4.1.3 BUILDING, POINT

#### BUILDING FACILITY POINT

Table 5. Layer description and code list for building facility point.

Object type	Object type	Definition	Description	Comment
Chimney	2022	vertical pipe-shaped construction to divert smoke.		Free standing or as a part of a building. All prominent chimneys in the landscape that are at least approximately 25 meters tall are to be mapped. Free standing chimneys with an area of at least 15 square metres are also mapped as <i>building</i> .  The point is placed at the bottom of the point object.
Mast	2019	tall and vertical construction erected on a small area, often anchored with cables	Not intended to contain or hold a notable space (in comparison to a tower).	Mapped for tele, radio and TV masts that are at least 25 metres high.  Exceptions for masts on alpine tundra which are mapped even if they are lower than 25 m.

#### SET OF ATTRIBUTES FOR BUILDING FACILITY POINT

Table 6. Set of attributes for building facility point.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	UUID is set when a new object is created in the system and is not changed thereafter.  UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.  It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	indicates the type of building facility point	Range of values for valid values.

Attribute	Type	Definition	Description
hojd	Floating point	height above ground	
rotation	Floating point	indicates orientation for a symbol	Orientation based on horizontal position with anti-clockwise rotation. Orientation is given in degrees (360 degrees in a circle).

## BUILDING POINT

Table 7. Layer description and code list for building point.

Object type	Object type number	Definition	Description	Comment
Lighthouse	1051	device for sea traffic that, through light or other signals, provides positional controls or warnings		Historical lighthouses and coastal lighthouses are mapped. Lighthouses with a surface of at least approximately 15 square metres are also mapped as <i>Building</i> .
Church	1042	building permanently used for religious worship within the Church of Sweden	A building in the landscape with a distinct character of a church, whether ancient or contemporary.	Chapels may be included if there is no reported church nearby.  Processed material with support from information provided by the Church of Sweden and the Swedish National Heritage Board.
Lean-to	1046	basic building for outdoor activities with the purpose to provide hikers protection from wind and rain	The building has three walls and a roof, such as a gap shelter or lean-to	Mapped along hiking trails. Within the coverage area of Lantmäteriet's mountain range information (see appendix 1) lean-tos are also mapped even if they are not located near a trail.  Lean-tos with a surface of at least approximately 15 square metres are also mapped as <i>Building</i> .
Windmill	1047	building erected to mill grains using wind power		Mapped for all windmills with a characteristic building form. Sails may be missing. Windmills with a surface of at least approximately 15 square metres are also mapped as <i>Building</i> .

Object type	Object type number	Definition	Description	Comment
Sami cot	1044	basic conical or dome shaped building in mountain regions intended for stays.		Updated only within the coverage area for Lantmäteriet's mountain range information (see appendix 1). <i>Cot</i> (Lavvu) with a surface of at least approximately 15 square metres are also mapped as <i>Building</i> .
Tower	1045	tall and vertical structure built on a relatively small area or on another building	intended to contain or hold a notable space (in comparison to a mast)	All towers that are prominent in the landscape are included. Towers with a surface of at least approximately 15 square metres are also mapped as <i>Building</i> .  The point is placed at the bottom of the point object.
Rest cabin	1050	cabin that can be used for protection or for rest and is always unlocked	Rest cabin according to the government's trail network, often have emergency phones.	Information is obtained from county administration boards, municipalities, STF (Swedish Tourist Association), the tourism industry, designated contact persons or through field controls and by image interpretation.
Bell tower	2016	tower-like, free standing construction built for church bells often adjacent to a church		Fully mapped. Bell tower with a surface of at least approximately 15 square metres are also mapped as <i>Building</i> .
Wind turbine	2025	tower or mast with a device that converts wind energy to electricity		Mapped for all wind turbines that are at least 25 metres high, including the maximum heights of the rotor blades above the ground. Wind turbines with a surface of at least approximately 15 square metres are also mapped as <i>Building</i> .  The point is placed at the bottom of the point object.
Blast shelter	1052	space under ground for protection during rocket launches		Presented within Estrange space centre.

Object type	Object type number	Definition	Description	Comment
		or other types of shooting		

## SET OF ATTRIBUTES FOR BUILDING POINT

Table 8. Set of attributes for building point.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	<p>UUID is set when a new object is created in the system and is not changed thereafter.</p> <p>UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.</p> <p>It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.</p>
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	indicates the type of Building point	The value range describes valid values.
hojd	Floating point	height above ground	Given in the unit metres.
rotation	Floating point	indicates orientation for a symbol	Orientation based on horizontal position with anti-clockwise rotation. Orientation is given in degrees (360 degrees in a circle).

## 4.2 Facility area

### 4.2.1 FACILITY AREA, POLYGON

#### FACILITY AREA (POLYGON)

Table 9. Layer description and code list for facility area, polygon.

Object type	Object type number	Definition	Description	Comment
Industrial area	2831	a facility area primarily used for industrial activities.		<p>Energy production, mining areas, test track, quarries and reindeer enclosures are mapped regardless of their size.</p> <p><i>Industrial area, unspecified</i> is used for larger facilities to keep the area together and where it is not adjacent to a locality.</p> <p>Unspecified areas larger than 100,000 square meters (10 hectares) are mapped.</p> <p>Areas of 30,000-100,000 square meters (3-10 hectares) are mapped if they are mostly undeveloped.</p> <p><i>Industrial area, unspecified</i> is not included when the area coincides with an industrial- and retail area in the layer <i>Ground</i>.</p>
Community function	2832	facility area used for socially beneficial activities		

Object type	Object type number	Definition	Description	Comment
Recreation	2833	facility area primarily used for activities related to sport, leisure, or culture		<p><u>Motorsport facility</u></p> <p>Within a motorsport facility the facility area with the sports purpose <i>Car racing track</i> can be mapped.</p> <p><u>Sports facility</u></p> <p>Facility area intended only for track and field is presented as <i>Track and field facility</i>.</p> <p>Within a sports facility can facility areas with the sports purpose <i>Ball field, Soccer field, Running track, Tennis court</i> be mapped.</p>
Civil firing range	2834	a restricted area where civilian dangerous, such as firing with live ammunition, detonations, or rocket launching are regularly conducted		
Sports field	2835	a defined and prepared field or court on which sport activities are performed.	It often has standardized measurements.	Fields or courts located within a larger facility are also included.

## SET OF ATTRIBUTES FOR FACILITY AREA

Table 10. Set of attributes for facility area, polygon.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	<p>UUID is set when a new object is created in the system and is not changed thereafter.</p> <p>UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.</p> <p>It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.</p>

Attribute	Type	Definition	Description
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	states type of facility area.	Value range for valid values.
andamal	Text	States activity	See value range for industrial area purpose, community function purpose, recreation purpose and sports field purpose below.
skjutfaltstyp	Text	type of firing range	Value range for valid firing range types. Valid only for the object type <i>Civil firing range</i> . See value range <i>Firing range type</i> .
skjutfaltstext	Text	informative text for firing range	Valid only for the object type <i>Civil firing range</i> .

## VALUE RANGE INDUSTRIAL AREA PURPOSE

Table 11. Value range for Industrial area purpose.

Value	Definition	Description	Comment
Energiproduktion ( <i>Energy production</i> )	transformation of energy source to electricity or heating	Biogas plant, oil power plant, power heating plant, natural gas, solar cell park, wave power plant, nuclear power plant.	
Gruvområde ( <i>Mining area</i> )	area where mining activities take place	Also includes sludge reservoirs and land with facilities for the mining operations.	Mapped if the mining facility is in use.
Rengärde ( <i>Reindeer enclosure</i> )	enclosure intended to be used during separation and slaughter or calf marking of reindeers		Mapped if the reindeer enclosure is in use. Abandoned reindeer enclosures are mapped if there is a stone wall around it. Reindeer enclosure is presented within the coverage area for Lantmäteriet's mountain range information (see appendix 1).
Testbana ( <i>Test track</i> )	testing facility for motor vehicles		
Täkt ( <i>Quarry</i> )	facility area where stone, gravel, or peat is extracted	Example: Mountain quarry, gravel pit or peatery.	

Value	Definition	Description	Comment
Ospecificerad (Unspecified)	unspecified industrial activity		

## VALUE RANGE COMMUNITY FUNCTION AREA PURPOSE

Table 12. Value range for Community function area purpose.

Value	Definition	Description	Comment
Avfallsanläggning (Waste facility)	area for reception of waste		Car dismantling, landfill and recycling central are mapped. Recycling station is not included.
Begravningsplats (Cemetery)	area used for the storage of the remains or ashes of the deceased	Cemetery, funeral place, or memorial grove.	
Civilt övningsfält (Civil practice field)	area used for training and education in the field of rescue, safety, and emergency preparedness	Used for e.g., rescue services, police, and ambulance care.	The Rescue Services practice field are mapped.
Kriminalvårdsanstalt (Prison)	fenced area for the enforcement of prison sentences		
Sjukhusområde (Hospital area)	area with a hospital or other healthcare institution	In the area, there is at least one workplace with 350 employees within healthcare sectors, and typically a larger hospital building.	According to Statistics Sweden's definition, a workplace refers to each address, property, or group of properties where the company conducts its operations.  This includes the 99 largest hospital areas in Sweden in 2023. This may change depending on factors such as maintenance and updates.
Skolområde (School area)	school buildings with attached grounds	Example: Schoolyard or campus.	No data has been collected yet.
Trafikövningsplats (Traffic training area)	specially prepared road course for training in manoeuvring and slippery driving, e.g., as part of a driver's licence training	Also called slippery course.	
Ospecificerad	unspecified community activities.		



Value	Definition	Description	Comment
<i>(Unspecified)</i>			

## VALUE RANGE RECREATION PURPOSE

Table 13. Value range for Recreation purpose

Value	Definition	Description	Comment
Aktivitetspark <i>(Activity Park)</i>	prepared outside area with several types of activities for training, playing and sports	Example: Skatepark, frisbee-golf, playground, and outdoor gym.	
Badanläggning <i>(Swimming facility)</i>	fenced in swimming pool or nature swimming with prepared services	facilities provided such as a bathing jetty, lifebuoy, and toilet	
Besökspark <i>(Visitor Park)</i>	usually fenced in park with entry fees visited for leisure and experiences	Example: Astrid Lindgrens World, Gröna Lund or Kolmården zoo.	
Campingplats <i>(Camp site)</i>	prepared area for overnight stays in a cabin, camper van, motor home or tent with attached services		All camp sites listed in the following designations should be included: - The Swedish Camping Association <a href="http://www.scr.se">www.scr.se</a> - Independent campsites in Sweden <a href="http://www.husvagnochcamping.se">www.husvagnochcamping.se</a> - Caravan Club <a href="http://www.caravanclub.se">www.caravanclub.se</a>  In addition, camp sites collected with municipalities are also included.
Friidrottsanläggning <i>(Track and field facility)</i>	prepared area where the main activity is track and field		In track and field facility, facility area with sports field purpose is presented with <i>Running track</i> .
Golfbana <i>(Golf course)</i>	prepared area for golf		A nine-hole course and larger.
Hundsportanläggning <i>(Dog sport facility)</i>	area where dog sport is practiced	Example: greyhound racing track	

Value	Definition	Description	Comment
Hästsportanläggning ( <i>Equestrian facility</i> )	area where equestrian sports are practiced		Larger facilities with stables and courses for several types of equestrian sports, such as trotting, galloping, dressage, jumping, field competition and driving.  In the equestrian facility, an area with sports field purpose <i>Gallop racecourse</i> or <i>Trotting racecourse</i> can be included.
Idrottsanläggning ( <i>Sports facility</i> )	larger sports and athletics facility (sports field)		
Koloniområde ( <i>Allotment area</i> )	area for gardening and cultivation activities in the form of allotment garden and/or cultivation plots.	An allotment garden can be built with an allotment cottage and a basic greenhouse.  A cultivation plot is primarily intended for the cultivation of vegetables, fruit, berries, and flowers. There may also be a small shed on the cultivation plot.	
Kulturanläggning ( <i>Culture facility</i> )	area to show various cultural interpretations	Examples: Open-air Museum, local heritage museum, or cultural village.	
Motorsportanläggning ( <i>Motorsport facility</i> )	prepared area for motor sports	Example: Motocross track.	
Parkområde ( <i>Park area</i> )	larger garden area where grass, flowers, bushes, and tree plantations are crossed with a system of walking paths	Channels and ponds together with sculptures, fountains, pavilions as well as other smaller buildings are often included.	
Skjutbaneområde ( <i>Shooting range area</i> )	prepared area for training or competition in shooting	Examples: Hunting, pistol, larger archery, and clay pigeon ranges of a permanent nature.	Within the shooting range area, the facility area point is mapped with sports field purpose <i>Shooting range</i> or <i>Shooting range, smaller</i> .
Vintersportanläggning	prepared area for winter sports	Examples: Ski jumping slope, alpine skiing facility, ski stadium, bobsleigh- and luge course.	

Value	Definition	Description	Comment
<i>(Winter sports facility)</i>			
Ospecificerad <i>(Unspecified)</i>	unspecified recreation purpose		

## VALUE RANGE FIRING RANGE TYPE

Table 14. Value range for Firing range type.

Value	Definition	Description	Comment
Skjutfält <i>(Firing range)</i>	Firing range on land		
Skjutområde <i>(Firing area)</i>	Firing range on water		

## VALUE RANGE SPORTS FIELD PURPOSE

Table 15. Value range for Sports field purpose.

Value	Definition	Description	Comment
Bollplan <i>(Ball field)</i>	field for ball games	Examples: American football, baseball, soft ball, cricket, lacrosse, field hockey, rugby, basketball, beach volleyball, beach handball, multi-purpose field, padel.	
Fotbollsplan <i>(Football field)</i>	field prepared for football		All fields where organized football activities take place. Boundary lines should be clearly visible.
Galoppbana <i>(Gallop racecourse)</i>	racecourse prepared for gallop competitions.	Examples: Göteborg, Jägersro, Bro Park	Main courses according to <a href="#">Svensk galopp</a> .
Isbana <i>(Ice rink)</i>	field with ice prepared for sports	Examples: Ice hockey rink, bandy field.	
Löparbana <i>(Running track)</i>	track and field course for running.	Generally, an oval-shaped track.	

Value	Definition	Description	Comment
Motorsportbana ( <i>Motorsport course</i> )	course prepared for motorsport		The racetracks within the motorsport facilities are only presented for the larger facilities like Anderstorp Raceway, Falkenbergs motorbana, Gotland Ring, Karlskoga motorstadion, Kinnekulle Ring, Linköpings motorstadion, Mantorp Park, Mittsverigebanan, Ring Knutstorp, Sturup Raceway and Tierp Arena.
Tennisbana ( <i>Tennis court</i> )	court prepared for tennis		Private tennis court on an independent property are not included.
Travbana ( <i>Trotting racecourse</i> )	racecourse prepared for trotting competitions		Selection according to <a href="http://www.travsport.se">www.travsport.se</a>
Ospecificerad ( <i>Unspecified</i> )	unspecified purpose for sports field		

## AIRPORT AREA

Table 16. Layer description and code list for airport area, polygon.

Object type	Object type number	Definition	Description	Comment
Airport area	2854	facility area for departure and arrival by aviation	The facility area includes runways as well as buildings, parking spaces and other facilities related to the airport.	Aviation activities conducted according to the list AIP, published by Air Navigation Services of Sweden, is mapped. The Air Force's flotilla and training airfields are part of AIP. Aviation without any official statues (e.g., flight clubs) can also occur, but not model airplanes or seaplanes.

## SET OF ATTRIBUTES FOR AIRPORT AREA

Table 17. Set of attributes for airport area.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	<p>UUID is set when a new object is created in the system and is not changed thereafter.</p> <p>UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.</p> <p>It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.</p>
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	states that the type is airport area	The object type is Airport area.
iata	Text	three-digit identification code for airports	IATA-codes are only available for airports with regular flights, for example, ARN – Stockholm Arlanda Airport.

## RUNWAY

Table 18. Layer description and code list for runway, polygon.

Object type	Object type number	Definition	Description	Comment
Runway	2853	prepared surface for take-off and landing of airplanes	Runway within an airport.	<p>Runways within mapped airport areas.</p> <p>Also mapped for former airports.</p> <p>Taxiways are not included.</p>

## SET OF ATTRIBUTES FOR RUNWAY

Table 19. Set of attributes for runway, polygon.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	<p>UUID is set when a new object is created in the system and is not changed thereafter.</p> <p>UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.</p> <p>It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.</p>
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	states that the type is runway	A text value that should always be runway.
flygplatsstatus	Text	states if the airport is operational or closed	See value range for Airport status.

## VALUE RANGE AIRPORT STATUS

Table 20. Value range for Airport status.

Value	Definition	Description	Comment
I drift (Operational)	the airport is operational		
Nedlagd (Closed)	the airport is closed		

## 4.2.2 FACILITY AREA, POINT

## FACILITY AREA POINT

Table 21. Layer description and code list for facility area, point.

Object type	Object type number	Definition	Description	Comment
Industrial area, point	2841	a facility area represented by a point primarily used for industrial activities		

Object type	Object type number	Definition	Description	Comment
Community function, point	2842	facility area, represented by a point, used for public contexts		
Recreation, point	2843	facility area represented by a point, primarily used for activities related to sport, leisure, or culture		
Sports field, point	2844	delimited and prepared field or course, represented with a point, where sports or athletic activities take place	Often has standardized measurements. Examples: American football, baseball, soft ball, cricket, lacrosse, field hockey, rugby, basketball, beach volleyball, beach handball, multi-purpose field, padel.	A field or course inside a larger facility is also included.

## SET OF ATTRIBUTES FOR FACILITY AREA, POINT

Table 22. Set of attributes for facility area, point.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	UUID is set when a new object is created in the system and is not changed thereafter.  UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an object, such as a property, throughout its lifetime.  It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	states type of facility point	Value range for valid values.
andamal	Text	states activity	See value range for industrial area purpose, community function purpose, recreation purpose and sports field purpose below.

Attribute	Type	Definition	Description
rotation	Floating point	indicates orientation for a symbol	Orientation based on horizontal position with anti-clockwise rotation. Orientation is given in degrees (360 degrees in a circle).

## VALUE RANGE INDUSTRIAL PURPOSE

Table 23. Value range for Industrial purpose.

Value	Definition	Description	Comment
Hamn (Harbour)	area, where ships can anchor and moor, meant for protection, loading, unloading and storage	Examples: Fishing harbour, industrial harbour.	Editorial collection takes information from the Swedish Maritime Administration's port register.  Guest harbour is not included but is instead presented as <i>Guest harbour</i> .

## VALUE RANGE COMMUNITY FUNCTION PURPOSE

Table 24. Value range for Community function purpose

Value	Definition	Description	Comment
Sjöräddningsstation (Sea rescue station)	rescue station with a stationed sea rescue unit	The stations are operated by the Swedish Sea Rescue Society.	

## VALUE RANGE RECREATION PURPOSE

Table 25. Value range for Recreation purpose.

Value	Definition	Description	Comment
Badplats (Swimming area)	swimming pool or nature swimming with prepared services	facilities provided such as a bathing jetty, lifebuoy, and toilet	
Gästhamn (Guest harbour)	harbour (marina) prepared with boat berths, available for temporary visiting recreational boats for a fee	Editorial collection from: - The Guest Harbour guide (Gästhamnsguiden) - Swedish Guest Harbours (Svenska Gästhamnar)  In addition to these, guest harbours collected in collaboration with the municipalities are also mapped.	
Småbåtshamn (Small boat harbour)	harbour (marina) prepared for mooring of leisure boats		



Value	Definition	Description	Comment
Ställplats ( <i>Motorhome pitch</i> )	a parking space designated for temporary parking and overnight stay of motorhomes		

## VALUE RANGE SPORTS FIELD PURPOSE

Table 26. Value range for Sports field purpose.

Value	Definition	Description	Comment
Skjutbana (Shooting range)	prepared range for training or competition in shooting	Examples: Shooting range for rifle, field shooting or automatic weapon as well as longer hunting shooting range.	A permanent range which is at least 300 m long.
Skjutbana, mindre (Shooting range, smaller)	smaller prepared range for training or competition in shooting	Examples: Hunting shooting, pistol, larger bow shooting and clay pigeon course.	A permanent range.

## AIRPORT POINT

Table 27. Layer description and code list for airport point.

Object type	Object type number	Definition	Description	Comment
Helicopter pad	2852	designated spot from which air traffic or helicopter traffic originates	Helicopter pads normally have one or more helicopter landing pads and may have limited infrastructure such as fuel stations, hangars, and workshops.	They are mapped if they are licensed by the Swedish Transport Agency (Luftfartsverket) according to AIP, except for within the coverage area of the Lantmäteriet's mountain range information where all helicopter landing sites are mapped.

## SET OF ATTRIBUTES FOR AIRPORT POINT

Table 28. Set of attributes for airport point.

Attribute	Type	Definition	Description
objektidentitet	Text	a globally unique identity for exchange objects	<p>UUID is set when a new object is created in the system and is not changed thereafter.</p> <p>UUID consists of a character combination of 36 characters generated according to standardised procedures and follows an</p>

Attribute	Type	Definition	Description
			object, such as a property, throughout its lifetime. It is ensured that a UUID is unique within the object type, i.e., it is checked within the domain.
objekttypnr	Integer	unique integer for the object type	
objekttyp	Text	states that the type is airport are	The object type is Airport area.
iata	Text	three-digit identification code for airports	IATA-codes are only available for airports with regular flights, for example, ARN – Stockholm Arlanda Airport.
rotation	Floating point	indicates orientation for a symbol	Orientation based on horizontal position with anti-clockwise rotation. Orientation is given in degrees (360 degrees in a circle).

## 5 List of change

Table 29. List of change.

Version	Date	Reason and change from previous version
1.3	2024-02-28	Church has received a new definition, description, and comment.
1.2	2024-01-16	First established version in English.