

FIG Working Week 2005 in Cairo

## A NEW MULTI-DIMENSIONAL INFORMATION SYSTEM INTRODUCED IN SWEDEN

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The National Land Survey of Sweden



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## New legislation for 3D Cadastre

The 3D Cadastre came into force in Sweden on January 1st 2004

- .....
- The Land Law
- The Real Property Formation Act
- The Joint Facility Act
- The Real Property Register



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## Multi-dimensional regulations

- ✓ 3D real properties and multi-dimensional space
- ✓ A closed figure that is defined in the X, Y and Z directions
- ✓ Must contain, or be destined to contain, a building or some other facility
- ✓ Created through a cadastral procedure
- ✓ Suitability conditions that must be satisfied:
  - \* better management
  - \* facilitate construction and financing
  - \* does not result in disruption of the property division
  - \* at least five apartments



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## The need for forming 3D units

- ✓ More efficient use of real property in inner city areas:
  - Existing buildings can be extended by adding a storey
  - Dwelling units can be built above a railway line
- ✓ More efficient use of publicly owned land by creating underground facilities:
  - Garages, archives, assembly halls
- ✓ 3D can help clarify ownership situation and legal rights between different parties
- ✓ Tunnels, stations, railway bridges and roads



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## The need for 3D property formation

- ✓ Reforming tenant-owner associations that also include commercial premises
- ✓ Making use of unused underground shelters for alternative purposes
- ✓ Securing ownership rights for major underground structures for electricity and telecommunications
- ✓ Separating ownership of inner city property units to stimulate introduction of new activities in the city



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## Redovisas i fastighetsregistret



Fastighet		Senaste ändringen i allmänna delen	
Beteckning		2004-01-08	
Staffanstopp Stanstorp 1:792			
Nyckel: 120323087			
3D information			
Fastigheten har ett eller flera 3D-utrymmen.			
Församling			
S:T Staffan			
Socken: Staffanstopp			
Adresser			
Adress			
Blekingevägen 2			
245 39 Staffanstopp			
Närmegatan 25-U, 4, 6-P, 8			
246 31 Staffanstopp			
Läge, karta			
Område	X (Räkets 2,5gonV/Y (Räkets 2,5gonV))		
1	6171330 0	1336290 0	
2	6171331 1	1336211 8	
3	6171315 4	1336209 0	
4	6171302 3	1336294 9	
5	3D-utrymme	6171311 7	1336306 3
Ärendet: Byggnad			
Storlek: Utbredning i horisontalplanet ca 20 kvm			
Höjd: Mellan ca +20, 5 och 24, 7 i lunds höjdsystem			
Uthållbar fastighet: Staffanstopp Stanstorp 1:6			

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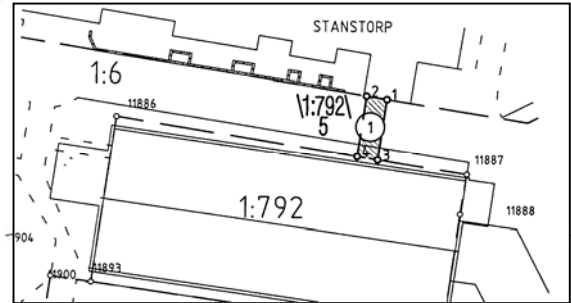
### "The first ten".....



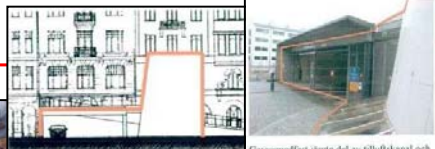
- ✓ Stanstorp 1:192, Staffanstorp
- ✓ Gamla Staden 7:102-4, Helsingborg
- ✓ Sör Romme 40:6, Borlänge
- ✓ Turning Torso, Malmö
- ✓ Kv Bangården, Linköping
- ✓ Kv Örnen, Lidköping
- ✓ Kv Grinden, Stockholm
- ✓ Bageriet 18 & 31, Sundbyberg
- ✓ Apoteket 21, Sundbyberg

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### Magnoliagården, Staffanstorp

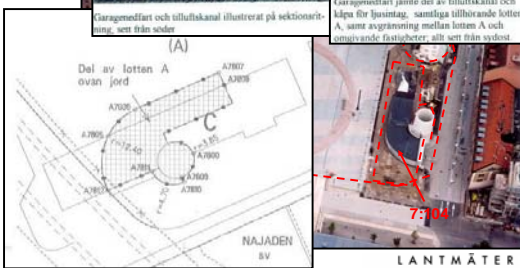


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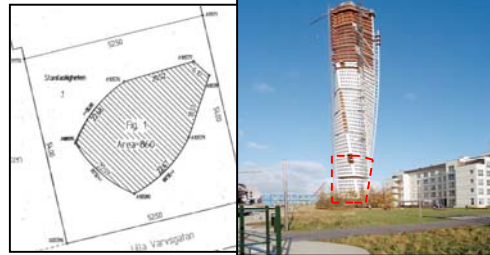
Garagemedfart och tilluftskanal illustrerat på sektionssnitt, sett från söder

Garagemedfart jämte del av tilluftskanal och köpa för ljusmat, samtliga tillhörande lotten A, samt avgränsning mellan lotten A och angränsande fastigheter, allt sett från västost



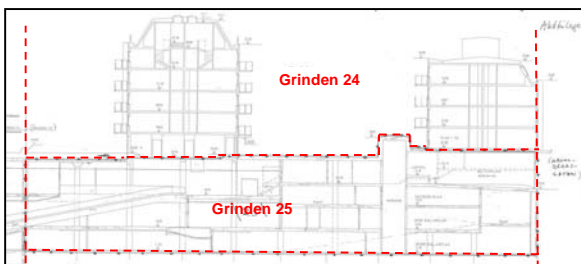
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### Turning Torso, Malmö



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### Kv Grinden, Stockholm



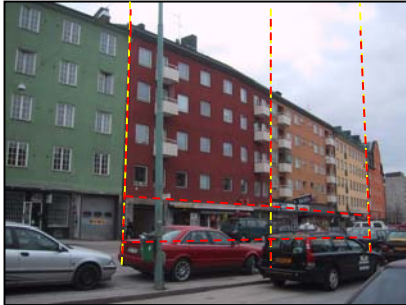
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### Kv Örnen, Lidköping



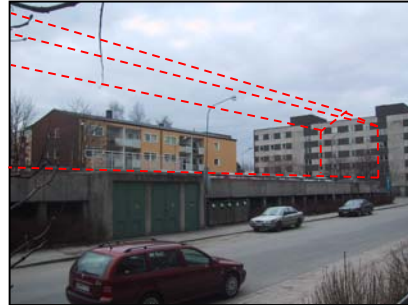
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**Bageriet 18 & 31, Sundbyberg**



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**Apoteket 21, Sundbyberg**



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**Kv Oxen mindre, Stockholm**



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**Experiences from the first year. And thereafter?**

**Demand during 2004:**

- ✓ 21 cadastral procedures completed
- ✓ 30 in progress
- ✓ 75-100 projects in 2005
- ✓ Large interest for 3D property formation
- ✓ Successive increase
- ✓ "A new way of thinking and a new way of looking at problem solving"



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