# How to organize a Planning System

by the example of Berlin / Germany

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How to organize a Planning System

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Spatial planning as a System Principles

#### A planning system needs certain characteristics:

- Flexibility: It must be easy to change and able to keep up with the city development
- **Transparency**: All steps must be comprehensible and explained and discussed publicly (Public Participation)
- **Simplicity**: It should be as simple as possible and as accurate as necessary. Therefor only future perspectives should be shown on an itemization adjusted to the scale of planning.
- **Sustainability:** Environmental issues must be respected on all planning levels!!!
- Logical structure:
  - Plans should be build on each other
  - Informal and strategic plans form the basis for legal planning
  - General practices (like Public Participation, Environmental proving) are identical for all legal plans.
  - There is one format of depiction and explanation.

Spatial planning in Berlin Basic Information

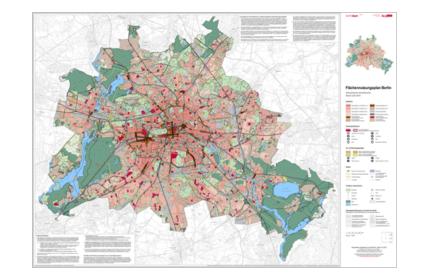
- Berlin is a city as well as a federal state. With 3.4 million inhabitants and an area of 892 km2 (3,81 l/km2), the German capital is the most populous city in Germany and also the largest in extent. Open spaces (parklands, forests, water and agricultural land) comprise more than 40 % of the area of the city.
- Berlin land use planning is integrated into state-wide and regional planning policies.
- Berlin as a metropolis is integrated into the joint planning procedures for the capital city region Berlin-Brandenburg. As the main planning instrument on a citywide level, Land Use Planning is regulated by German planning legislation. The Land Use Plan serves as a strategic framework for more detailed planning concepts for sub-areas of special importance. Local Plans have to follow the general zoning pattern of the Land Use Plan.

Spatial planning in Berlin

- Spatial planning for the city takes place on different levels of detail. Issues of city-wide importance are covered by small scale plans for the whole area of the city. (Land Use Plan with general zoning)
- More local planning concepts are detailed on larger scale maps covering smaller parts of the city. (Detailed Plans with detailed zoning)
- These formal planning documents, are based on national planning legislation and on Berlin-specific environmental legislation (Landscape Program and Local Landscape Plans)
- They are supplemented by a great number of informal planning concepts for specific areas or subject matters (e.g. Sectoral Development Plans, Intermediate Area Plans, etc.)

Spatial planning in Berlin Legal plans

#### General Plan (Land Use Plan)

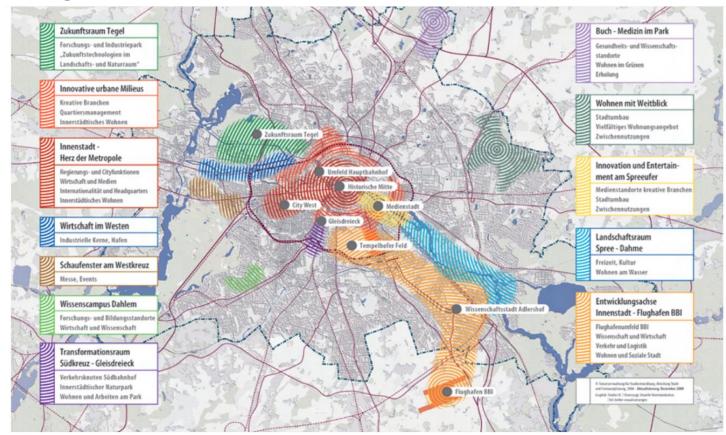


#### **Detailed Plans (examples)**



#### Spatial planning in Berlin Strategic Plans - informal -

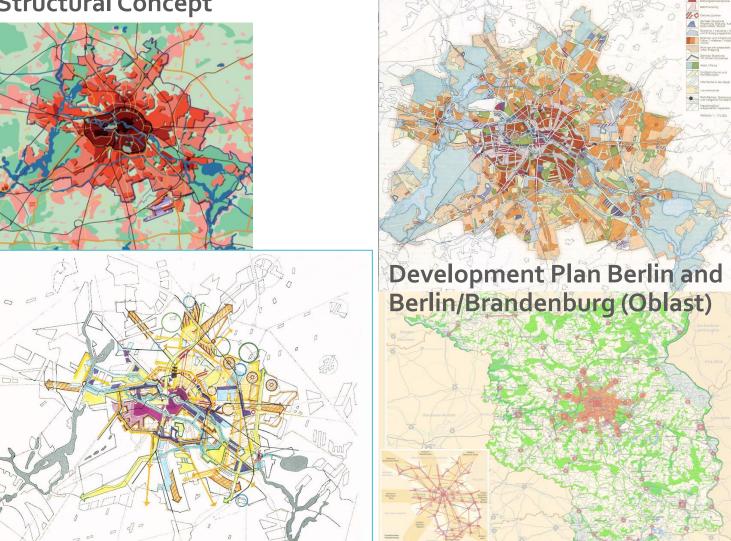
A strategic development concept for the city as a whole formulates guidelines and perspectives for the long term development of Berlin, looking into a wide range of issues and development alternatives and pointing out various fields of action.



Strategic development areas in Berlin (2009)

Spatial planning in Berlin Strategic Plans -informal-

#### Structural Concept

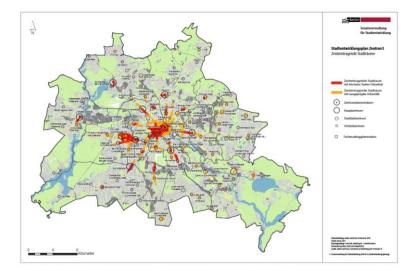


## Spatial planning in Berlin

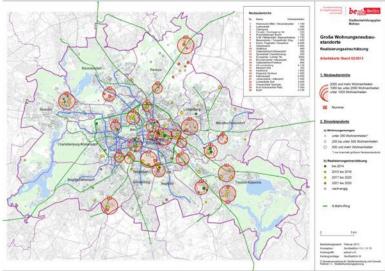
Sectoral Development Plans - informal - Sectoral Development Plans formulate planning guidelines and objectives as well as priorities and measures of implementation on a city-wide level for issues such as

- housing
- industry
- social services
- transport
- public utilities
- open spaces
- hierarchy of urban centers
- public spaces.

They are used by the planning administration as a basis for more detailed planning concepts.



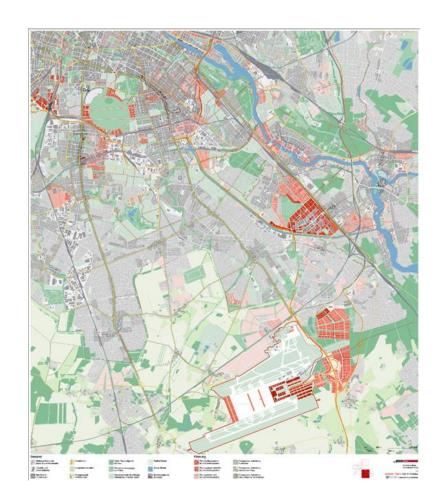
Große Wohnungsneubaustandorte in Berlin



#### Spatial planning in Berlin Spatial Development Plans - informal-

#### **Intermediate Spatial Plans**

- The city districts are responsible for the preparation of Intermediate Area Plans (BEP) for sub-sections of their area. Including town planning as well as landscape proposals, this informal planning instrument closes the gap between the city-wide General Plan and site-specific Local or Detailed Plans.
- Intermediate Area Plans are legally binding for the public administration. They contain, as a rule, a concept for the distribution of land uses, specific proposals for important sites and planning topics, and an urban design concept.



Spatial planning in Berlin Master Plans "Planwerke" - informal -

- Master Plans convey the medium to long-term prospects for the respective subspace. They serve opinion making about concepts, policies and priorities and are an offer to all who participate in the urban and landscape development of the corresponding space.
- Master Plans are not legally required, but serve the system of overall urban planning instruments. Therefore, they constitute a working basis for the coordination of sustainable development processes.
- Spatial and structural relationships are mapped across district boundaries and allow inferences about individual development projects.
- Master Plans are developed primarily for areas where particularly high change dynamics needs concentrated control and which have importance for the entire city of Berlin.

Spatial planning in Berlin Master Plans "*Planwerke"* - informal - Masterplan Inner City *Planwerk Innenstadt* 





# **Public Participation**

On a legal bases

## Public Participation



The German Planning law "Baugesetzbuch" prescribes Public Participation for all planning procedures:

- Land Use Planning
- Modification of the Land Use Plan
- Detailed Plan
- Landscape Programming

Form for comments

Land Use Plan - Modifie	Lauon	for Urban Development and the Environment	benin
		on proposed modific Plan (FNP Berlin)	ation
	n for every area you want to c		
City district:			
Name of area:			
Number of modificat	ion: D	ate of modification:	
By giving these details, wh	ich you will find on the modific	ation sheet. you help us to process your	comments.
to the following part	of the written statement	e as specified by the draft mod / of the environmental impact a ustrial building land, community facility sp	assessmen
My comments / prop	osals:		
Further explanations	-		
from: (Name und Adresse	e bitte in Druckschrift eintrager	)	
Name	-	female	male
Street, number		ionaio [	
Postal code - town of	village		

## Public Participation



#### First phase of public participation

- Takes place at an early stage of the planning process
- The public are informed about the general planning objectives, alternative solutions, and possible repercussions of the proposed modifications.
- Citizens can put forward their own proposals and comments during this early stage, to be considered during the revision of the first draft.
- Important statements will then be put forward for public comment during the second participation stage.

## Public Participation



#### Second phase of public participation

- The revised draft of the plan is put on public display, together with a written statement, an environmental impact assessment, and other statements on environmental matters already available.
- During the participation period (usually one month), comments from the public will again be received. These are taken into consideration when the arguments for and against the plan are finally weighed up. Comments which have not been received before the published deadline may be excluded from further consideration.

#### Third phase of public participation

• The final plan (map and text) will be displayed in an exhibition for one month.

Landscape Program on the level of General Plan

Local Landscape Plan on the level of Detailed Plan

## Программа сохраненияи

- Программа сохранения развития ландшафтов, включающая в себя программу сохранения видов ("Landschaftsprogramm – LaPro"), является стратегическим инструментом для общегородского планирования с целью проявления интегрированной заботы об охране окружающей среды.
- В общегородском масштабе она преследует цель включения экологических задач в процесс городского строительства. Лишь с учетом естественных условий и потребностей окружающей среды можно обеспечить развитие города на перспективу будущего. Это означает, что природная основа – почва, вода и воздух, а также достаточное количество территорий, предназначенных для отдыха людей, и потребности живущих в условиях дикой природы растений и животных, включая и биотопную сферу, должны приниматься в расчет на всех уровнях планирования.

## Программа сохраненияи

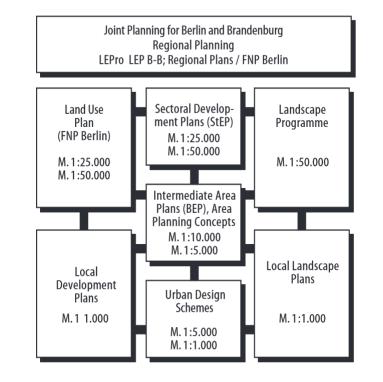
 В сочетании с Планом использования территорий Программа сохранения и развития ландшафтов, включающая в себя программу сохранения видов представляет собой дополнительное условие генерального планирования, нацеленное в первую очередь на достижение качественных целей и потребностей, создавая тем самым основу будущего развития города.

Благодаря Программе сохранения и развития ландшафтов, включающей в себя программу сохранения видов, принятой в 1994 году обладает **программой, обязательной для исполнения органами власти**, которая содержит в себе важный вклад в дело упреждающего экологического планирования на всех уровнях территориального планирования. Этот документ содержит задачи, цели и требования, которые необходимо принимать во внимание на всех этапах крупномасштабного территориального планирования и согласования.

- The Landscape Program including Nature Conservation ("Landschaftsprogramm – LaPro") is a strategic urban planning instrument for the adoption of integrated precautionary environmental protection measures.
- Its objective is to ensure at a general urban level that ecological concerns are incorporated into urban development. Only if natural conditions and environmental requirements are taken into account can a forward-looking development of the city be guaranteed.
- This means that the fundamental natural elements soil, water and air – should be taken into account whatever the level of planning, as should the provision of sufficient recreation areas for the inhabitants and the requirements of wild flora and fauna, including the network of interlinked biotopes.

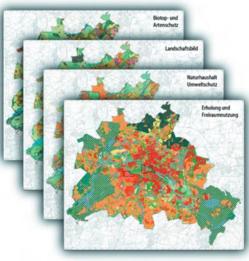
- Taken in conjunction with the Land Use Plan the Landscape Program including Nature Conservation represents an addition to preparatory town planning which is based particularly on qualitative targets and requirements and is the starting point for future urban development.
- The Landscape Program including Nature Conservation provide the city with a program which is binding for the authorities, and which contains important contributions to precautionary environmental planning at all levels of spatial planning. It contains specifications, targets and requirements which should be incorporated into any extensive spatial planning measures or weighting procedures.

## Integration in the planning system



#### Four Components :

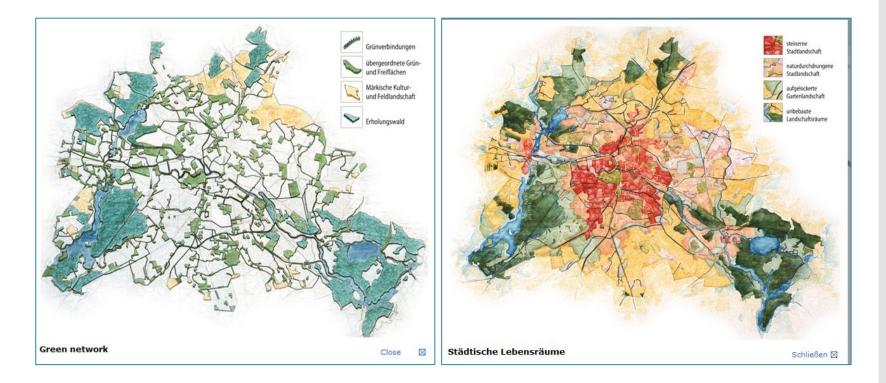
- Protection of biotopes
- Landscape picture
- Natural balance
- Recreation and Open Spaces



The four components of the Landscape Programme

#### **Green Network**

#### **Urban Habitat**



# **General Plan**

Spatial planning in Berlin

General Plan (Land Use Plan with general zoning)

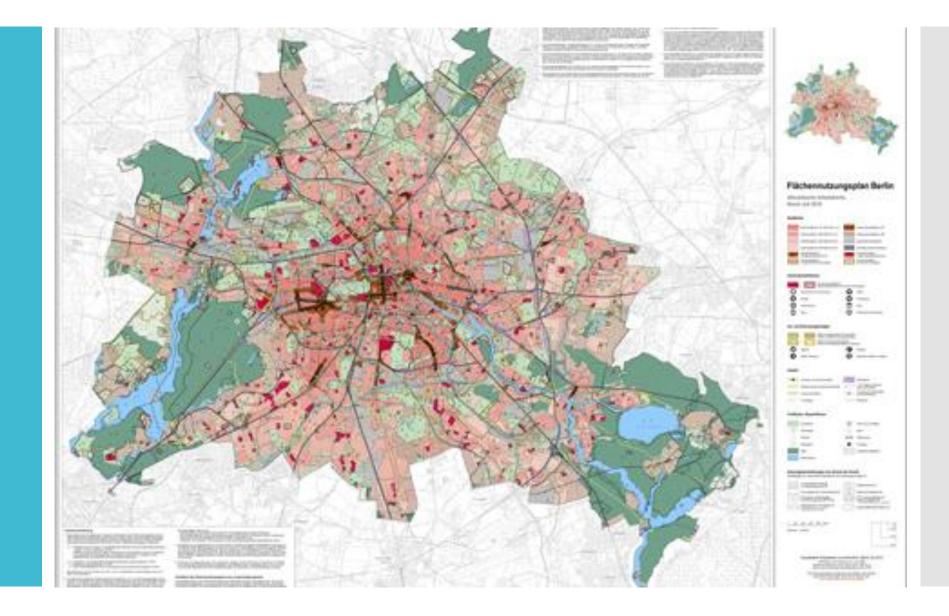
- The Land Use Plan is a general development plan containing planning objectives and proposals for the whole area of the city. The plan was enacted by the City Council and is kept up to date by regular amendments.
- The Berlin Land Use Plan shows in general terms the proposed distribution of land uses according to the strategic objectives of city development and relating to the foreseeable needs of the community.
- As a comprehensive planning instrument, the Land Use Plan formulates a general strategy for the spatial development of the city of Berlin, providing a long term planning framework for the city as a whole.

#### General Plan Simplifications

- Concentrating on general planning objectives, the Land Use Plan does **not distinguish between existing and proposed land uses**
- The Land Use Plan uses a generalizing (simplifying) form of presentation. It is not site specific. Areas smaller than 3 ha are, as a rule, not shown separately but included in the land use allocation for the surrounding or an adjoining area. Public services and utilities, transport corridors and specific open space uses are only shown separately, if they are of more than local importance or occupy an area larger than 3 ha.

## **General Plan**

Zoning map to the scale of 1:25.000 (an exact copy to the scale of 1:50.000 is also available



#### **General Plan**

Written statement (including explanatory maps)







**NAME** 

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**Weeks** 

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#### **General Plan** Explanation of Zoning

#### Residential Land

Residential land, W1 (GFZ >1.5) Mainly traditional building blocks, five storeys or more, floor space ratio (GFZ) above 1.5.

Residential land, W2

(GFZ < 1.5)

Predominantly three to five storey linear hous-

ing developments; interwar and large postwar

housing estates, including some high rise or

large scale residential buildings.



Residential Land W1, as defined by the Land Use Plan, comprises mainly the densely built-up older quarters of the inner dity. The part of the dty district of Schöneberg shown here is characterised by densely built-up five to six storey building blocks, predominantly used for housing, but with other uses mixed in. Gap sites caused by war damage were mostly built upon during the postwar period, but there are still sporadic opportunities for infill development The average building block is characterised by the following density figures: GFZ 3.3: GRZ 0.6: 220 dwellings/ha; 420 inhabitants/ha.



In some parts of the dity, residential land W1 indudes larger opportunities for new development. The building blocks in the foreground of the aerial view were constructed in the 1990ies. Their courtvards are open to the lakeside, most of the flats have a view of the lake. In spite of their height of up to seven storeys, the overall density is somewhat lower than in the old inner dity quarters: GFZ 2.5; GRZ 0.4; 210 dwellings/ha; 400 inhabitants/ha.

(The new housing on the far side of the lake is zoned residential W2 in the Land Use Plan.) W1: Now higher dessity housing (tammdsharper tacht)

> Residential Land W2, as defined by the Land Use Plan, includes most of the larger housing estates of the interwar and postwar periods. Among these are the mainly three to four storey residential blocks of the "White Gity" shown here, dating from the late 1920ies. Developments like these set a standard for

many housing projects of the 1950ies and 60ies in Refin Taking into account the generous provision of green open spaces, the area is characterised by the following density figures: GFZ 1.0; GRZ 0.3; 110 dwellings/ha; 180 inhabitants/ha.





Residential land W2 also includes the large housing estates of the 1970ies and 80ies in the eastern as well as in the western part of the dty. The large five to six storey building blocks in Hellersdorf shown here were mainly constructed between 1980 and 1990. Other large housing estates include various types of high rise buildings and tower blocks. The type of development shown here is charac-

terised by the following attributes: GFZ 1.1; GRZ 0.2; 120 dwellings/ha; 240 inhabitants/ha

#### Mixed Building Land



The Land Use Plan distinguishes between two categories of areas zoned for mixed uses. depending on their particular character and density of use. Intensively used high density areas in the city or district centres are dassified as mixed building land M1. This includes public services and utilities, which are not given a separate zoning allocation within M1 areas.

Mixed building land

M2

Areas of moderate density which are less

centrally located and less intensively used, are

dassified by the Land Use Plan as mixed build-

ing land M2. Their specific character may be

mixed use areas or as a small scale mixture of

other zoning categories such as housing and

manufacturing.

represented in Local Development Plans as



Mixed building land M1, as dassified by the Land Use Plan, indudes the two main centres of the city a sumber of other central office. and shopping locations in the inner dty, the major district centres and a number of attracfive locations for similar uses adjoining the inner rings of the urban electric railway and

The building block shown here is located in the eastern city centre. It comprises mainly offices, but also a hotel, shops and a number of flats for city dwellers. Density and intensity of use are high: GFZ 4.5; GRZ 0.8; 120 inhabitants/ha; 900 jobs/ha.



M 1: Part of the western city centre, near the Zea

M 1: Part of the castors dity contro (Schätzpestraße

Mixed building land M2, as defined by the Land Use Plan, encompasses a wide range of different types of areas intended for a mixture of uses (industry, commerce, senices, housing...), including the traditional mixed areas in the inner city, along major roads and in central locations outside the inner city. This is illustrated by the building complex "Hackesche Höfe" in the Central District of Bedin, where a mixture of old and new buildings are used for housing, offices, shops and cultural institutions in a high density environment GFZ 4.0: GRZ 0.7: 320 inhabitants/ha; 400 jobs/ha.

M2: Central City District (Hackasche Hofe)



Anart from the mixed use areas of the inner dity, the category M2 comprises many of the older local centres and villages such as Karow (Pankow district) shown here. In these areas, the existing mixture of uses will generally be retained. The old agricultural buildings offer themselves to small scale industries, services or housing. Conflicts between different uses will have to be solved by appropriate technical means. Mixed building land of this type is usually characterised by comparatively low density

GFZ 0.25: GRZ 0.15: 30 inhabitants/ha; 20 jobs/ha.



## **General Plan**

Explanation of some conventional signs

#### Land for building purposes

(FSI up to 1,5)

(FSI up to 0.8)

(FSI up to 0,4)



Residential building land, W1 (FSI above 1,5) Residential building land, W2

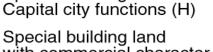












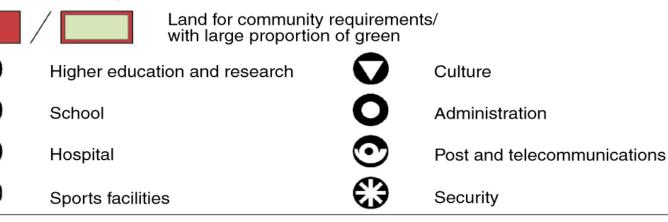
Special building land for

Residential building land, W3

Residential building land, W4

Special building land with commercial character

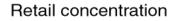
#### Land for community facilities





Mixed building land, M2

Commercial / industrial land





Special building land

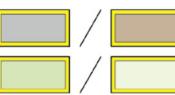
Special building land with large proportion of green

## **General Plan** Explanation of some

conventional signs

#### Land for supply and disposal plants

Water supply



area with commercial character / area with mixed use character

area with high proportion of green / area in agricultural use



Energy, power supply

Bus, tram or railway yard

Transport



Motorway with entrance / exit

Refuse or sewage disposal

Major road

Option for major road



Railway land



Urban and regional rapid transport station above / below ground level

Main-line station above / below ground level

Light railway



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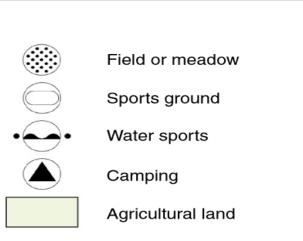
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Tunnel

## **General Plan**

Explanation of some conventional signs

# Open spaces, waterGreen areaParkland+++CemeteryAllotmentsWoodlandWater



Use restrictions for environmental protection or based on other legislation









of high landscape value

Clean air priority area

Residential areas

Aircraft noise protection area

Former Tempelhof Airport: Area subject to special legislation to protect existing open space



UNESCO world heritage area

Water conservation area



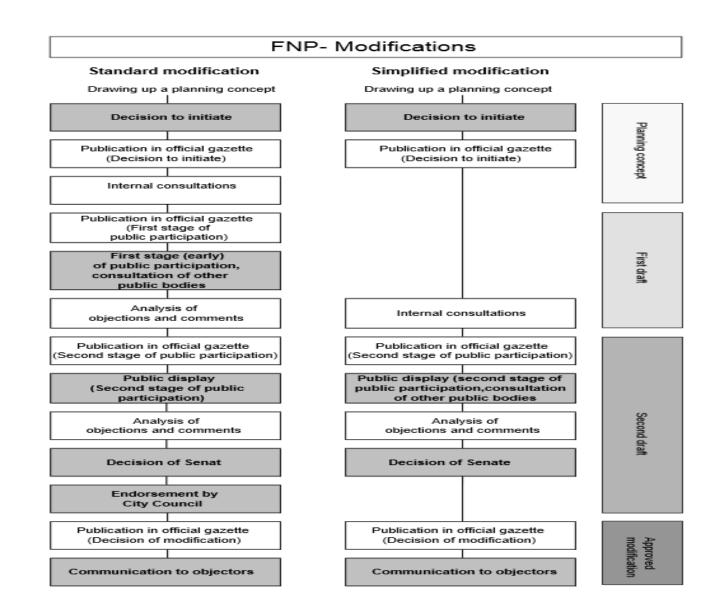
Flora-fauna-habitat-area\*/ Landscape conservation area/ Nature reserve \* including bird protection area

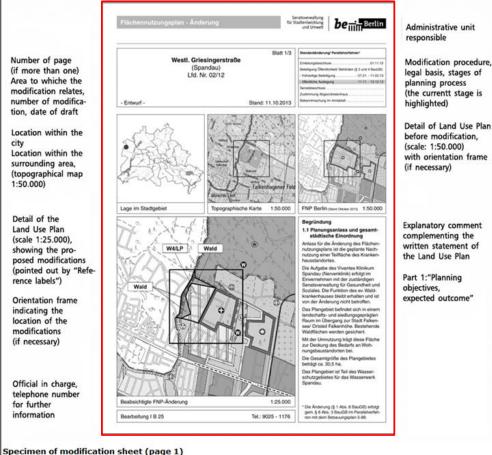


Polluted ground

#### Reasons for amending the Plan

- The Berlin Land Use Plan has to be regularly kept up to date in order to fulfil its role as an effective long term planning instrument for strategic decision making on land use matters. This often requires modifications of the original plan, taking into account changes in overall and local circumstances as well as changing political and planning objectives relating to the city as a whole, to certain subject matters or to local development issues.
- The zoning map will be updated and republished again at certain intervals, depending on the number of modifications to be incorporated.





Every modification to the Land Use Plan is accompanied by a "modification sheet". This shows the location of the area concerned, explains the proposed modification, and gives details of the planning procedure to be followed. It is regularly updated in line with the progress of the planning process.

city surrounding area, 1:50.000)

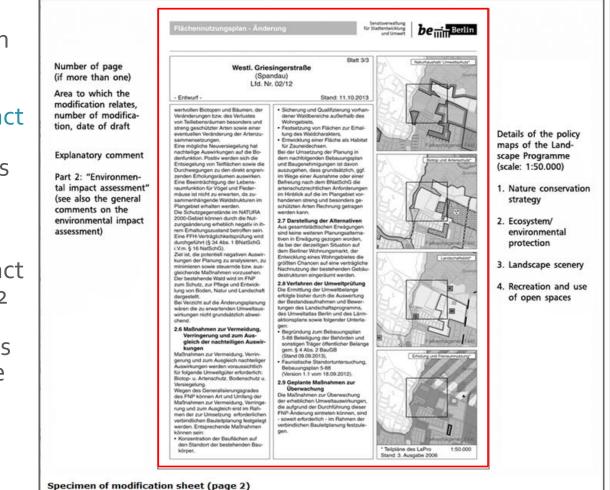
> Land Use Plan (scale 1:25.000). showing the prorence labels")

> > Official in charge. telephone number for further information

Image 1 of 2

Close  $\boxtimes$ 

For standard modifications, which require the preparation of an environmental impact assessment the modification sheet is supplemented by a second page. This contains the environmental impact assessment as part 2 of the written statement, as well as the objectives of the Landscape Program for the area concerned.



Specimen of modification sheet (page Image 2 of 2

Spatial planning in Berlin

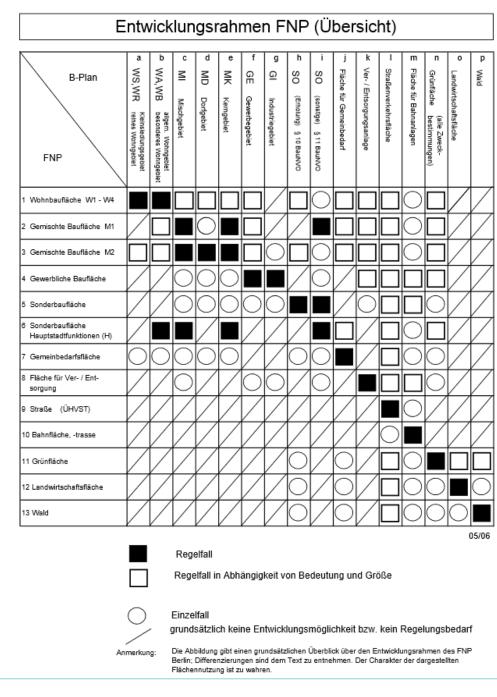
 Not all of the city's territory is covert by Detailed Plans. Usually Local Plans are set up if something should be changed or a spatial development is wanted. This could be if

- the city needs a new community facility or an object of infrastructure
- the character of a city quarter should be preserved and the urban substance should be upgraded
- the currant usage should be changed (conversion)
- an investor wants to develop a new project

- Based on the outline zoning categories of the city-wide Land Use Plan, Local Plans contain site specific regulations for the development of small parts of the city or individual plots of land.
- They determine permitted land uses and building densities, specify which parts of a site may be built upon, and mark out areas for local roads.
- **Responsibility** for Local Development Plans lies with the **city districts**, only in exceptional circumstances (e.g. when dealing with central government functions) with the city council.
- They are legally binding for individual land owners and investors.

- While the Land Use Plan defines a general zoning pattern for the whole city, Local Plans contain more detailed, binding regulations on land use and building densities for smaller areas. These have to follow the general framework of the Land Use Plan. There is some scope, however, for interpretation and adaptation to local circumstances.
- Concentrating, as required by legislation, on the general pattern of land uses, the General Plan leaves room for locally determined problem solutions on subsequent levels of planning. This allows the city districts as local planning authorities to react to new development opportunities and to define their own priorities when drawing up Local Plans, constrained only by the broad framework of the city-wide plan.
- Within the broad frame work of the General Plan, Local Plans are free to specify more detailed regulations. They may also pursue their own planning objectives over and above a mere 'filling in' of detail. Thus, the general zoning proposals of the Land Use Plan form a basis for specific local planning solutions adequate for the development of individual sites and smaller areas.

### Local- or Detailed Plan Zoning - Level of detail



#### **General Plan**

- 1. Residential Land
- 2. Mixed Building Land (high density)
- 3. Mixed Building Land (lower density)
- 4. Commercial / industrial land
- 5. Special building land
- 6. Special building land (capital function)
- 7. Community facilities
- 8. Supply and Disposal plants and areas
- 9. Traffic (over regional)
- 10. Train areas
- 11. Green
- 12. Agriculture land
- 13. Wood

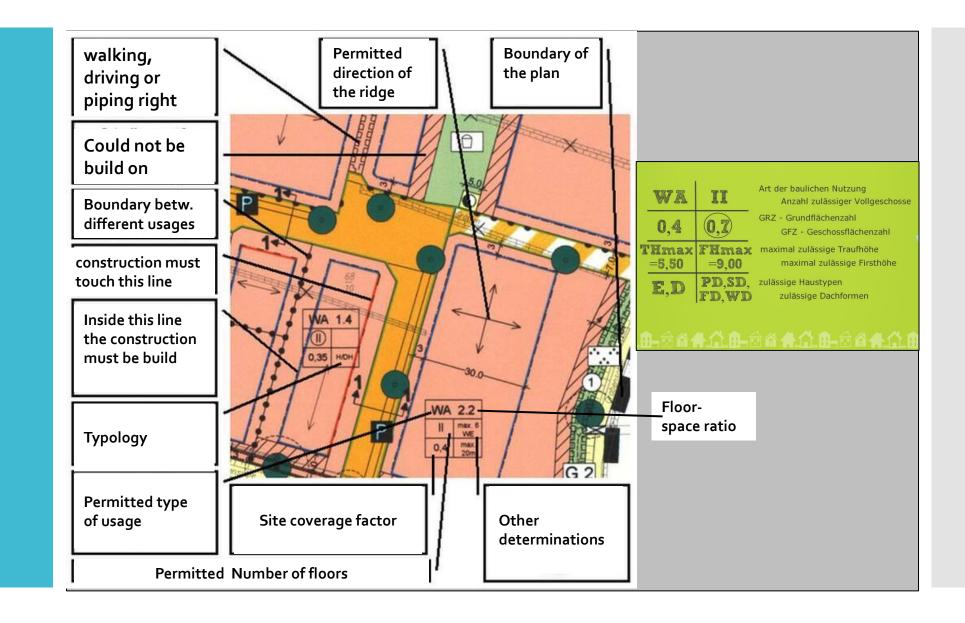
#### **Detailed** Plan

- a. Pure residential
- b. General housing, special housing
- c. Mixed use
- d. Village
- e. Central area
- f. Commerce
- g. Industry
- h. Special building land (recreation)
- i. Special building land (other)
- j. Community facilities
- k. Supply and disposal plants
- l. Streets
- m. Train areas
- n. Agriculture land
- Wood
- Normal case
  - Normal case dependent on seize and
- O <sup>importance</sup>
  - Particular case
  - no changes

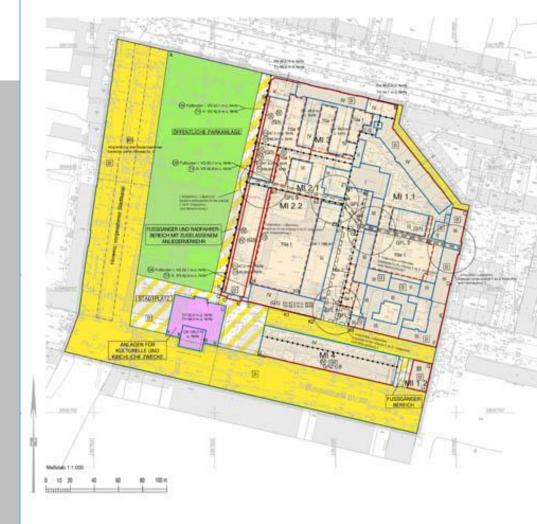
Local- or Detailed Plan City District and Department for Urban Development

- Commenting on Local Plans The Department for Urban Development (*Senatsverwaltung für Stadtentwicklung*) comments on draft Local Development Plans prepared by the city districts. Its comments are mainly concerned with the objectives of the General Plan and with important city-wide interests.
- An important city-wide interest is assumed for Local Plans affecting public services and utilities or transport corridors of citywide importance, for residential developments of more than 500 housing units, for officially declared 'Development Areas', for projects affecting the hierarchy of urban centers, and for landscape projects intended as compensation for new development and if they affect more than one city district.

With detailed zoning regulations



#### Local or **Detailed Plan** Example













Gemeinde: Potsdam Gemarkung: Potsdam Flur 23 und 25



POTSDAM Landeshauptstadt Potsdam

Internationage das Massengantes haj des Nacionalesquerentes en Statistica de la construcción de la constr



2. Öffentliche Auslegung Stand 23.07.2013

Fachbereich Stadplanung und Stadtemeuerung Bereich Stadtenteuerung

Lagebezugssystem ETRS 89 Höhenbezugssystem DHHN 92

Bageron M se stange 8 bill? Volgeches

Nderundhorg 3 Skopmon und Skolmen far das zulassige 1. tot 18. Indigentions

Liegenschaftskarte des Fachbereichs

Kataster und Vermessung Potsdam

Stand: April 2011

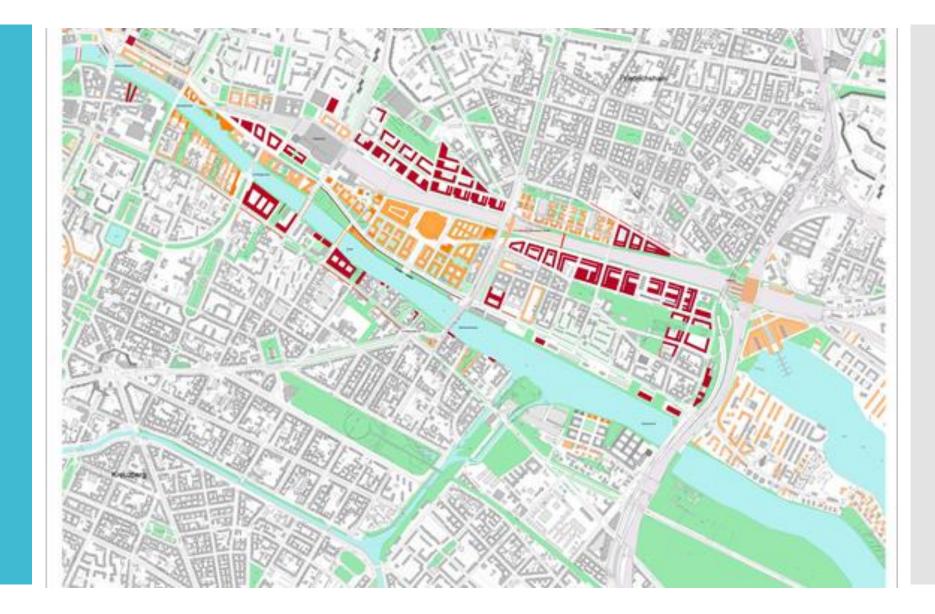
Sugerver & sin stillinge 2 Int R Volgesteen

Master Plans or Urban Design Proposals as Base for Local Plan

- Usually the local plan is based on an draft of an urban or architectural design. It should be avoided to have only one solution without alternatives.
- Alternative proposals can be developed by different methods:
  - Urban design / architectural competitions
  - Workshops with different architects
  - Competitions between different investors with different architects
- The chosen master plan then will be the base for the draft of the Detailed plan

Master Plans or Urban Design Proposals

as Base for Local Plan



Local- or Detailed Plan Realization of the Plan Setting up a Detailed Plan is a time consuming and costly procedure. If the plan is only needed to serve a private project the city should commit the investor to do his share by setting up a private / public contract in which the mutual obligations are described. E.g.:

- The city's obligations:
  - Allocate a site to the investor
  - Conduct the legal planning procedure
  - Supplying with technical infrastructure
  - Completing the road network
  - Organize public transportation
- The investors obligations:
  - To do the informal part of the planning
  - To organize and finance an urban design competition
  - To finance social infrastructure or parts of it

To finance the building of access roads and parkings