

# URBAN ZONNING

CL-410: Town Planning

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# Content of the presentation

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- ❑ Essentials of zoning/ Purpose of zoning
- ❑ Types of urban zones
- ❑ How to separate zones?
- ❑ Objects of Zoning
- ❑ Density Zoning
- ❑ Zoning Powers
- ❑ Zoning economy



# ➤ Meaning of the term

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- Zoning describes the control by authority of the use of land, and of the buildings thereon.
- Areas of land are divided by appropriate authorities into zones within which various uses are permitted.
- Zoning is the process of planning for land use by a locality to allocate certain kinds of structures in certain areas.
- Zoning also includes restrictions in different zoning areas, such as height of buildings, use of green space, density (number of structures in a certain area), use of lots, and types of businesses.
- Levels or types of zoning include open space, residential, retail, commercial, agricultural, and industrial.



# Meaning of the term

- Thus, zoning is a technique of land-use planning as a tool of urban planning used by local governments in most developed countries.
- The word is derived from the practice of designating mapped zones which regulate the use, form, design and compatibility of development.
- Legally, a zoning plan is usually enacted as a by-law with the respective procedures.

The use of land in town planning will be classified into two categories:

1. Profit-making uses of land
2. Non profit-making uses of land

- 1. Profit-making uses of land:** The land which is developed with profit motive is said to be used for profit-making and the sites developed for office, residences, industries, etc. are the examples of profit-making uses of land.
- 2. Non-Profit making use of land:** The land Which is developed without any motive of profit making is said to be non-profit making use of land. It includes roads, parks, playgrounds, government buildings, govt. offices etc.

# ➤ OBJECTS OF ZONING

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- It also requires consideration of future growth and development, adequacy of drainage and storm sewers, public streets, pedestrian walkways, density of population, and many other factors that are within legislative competence.
- Zoning helps city planners bring about orderly growth and change.
- It controls population density and helps create attractive, healthful residential areas.
- In addition, zoning g helps assure property owners and residents that the characteristics of nearby areas will remain stable.



# ➤ OBJECTS OF ZONING

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The main **purposes of zoning** are described below:

- Zoning's recognized purpose is to promote common good and general welfare of the community as a whole.
- It is main tool for planner for achieve his goal. The planner gets opportunities for designing for future growth and development of town.
- It is very useful for planner for making any town planning scheme effective and successful.
- The zoning affords proper coordination of various public amenities
- like transport, water supply, drainage, electric power etc.



# Principles of Zoning

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1. Arrangement of zones
2. Boundaries
3. Existing towns
4. Flexibility
5. New towns





# ➤ ADVANTAGES OF ZONING

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1. Danger from fire.
2. Future Development.
3. General amenities.
4. Health of community.
5. Population distribution.
6. Public utility services.

In general it may be suggested that zoning promotes health, safety, prosperity, orderly development and overall welfare of the community.



# IMPORTANCE OF ZONING

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- The importance of zoning has been recognized during the last century as a measure to control and to regulate uses of land.
- The zoning proves to be essential and fundamental to evolve comprehensive town planning and because of this fact, it is accommodated in present times in planning legislation of most of the centuries of the world.
- Zoning allow the specification of new development in all sorts ways – building height, style, etc. zoning also enable a city to grow sustainably in the future.
- The zoning guarantees that the future development of the town will be in accordance with the zoning plan which has been devised to serve the welfare of the community in the best possible manner.



# ➤ ASPECTS OF ZONING

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The zoning is related to the following three important aspects:

1. Density Zoning
2. Height Zoning
3. Use Zoning



# DENSITY ZONING

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**DENSITY ZONING:** In density zoning, the density of population in the residential areas is controlled by means of suitable rules and regulations.

Indirect measures are adopted to have effective density zoning:

1. The front, side and rear margins of the boundaries are specified.
2. The maximum height of the building is specified.
3. The maximum size of allotment for each house is specified.
4. The number of houses per unit area is limited.
5. The ratio of total site area to the total built-up floor area is specified.

# HEIGHT ZONING

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**HEIGHT ZONING:** The height zoning aims at controlling the height of buildings with due consideration of contents of the buildings and the street width/ the marginal open spaces for the provision of light and ventilation.

## The height zoning affords the following advantages:

- Controls the development of central business area of the cities and it thereby assists in solving the problems associated with such heavy concentration e.g. traffic congestion etc.
- It is found that if buildings with uniform height are constructed on important streets or roads, it gives pleasing aesthetic appearance.
- It prevents an undue monopoly of light and ventilation by some tall buildings at the expense of adjacent units of small heights.

# USE ZONING

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USE ZONING: This is the most important aspect of zoning and it defines the uses to which various parts of the town will be put.

They are classified into four sub-divisions:

1. Residential zone
2. Commercial zone
3. Industrial zone
4. Recreational zone



# Residential Zone



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# High Rise Residential Zone

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# Commercial Zone

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Includes: Shops, offices, restaurants, hotels etc.



# Industrial Zone

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**Industrial zone can refer to:** Industrial park, an area zoned for industrial development. Industrial region, a part of a country with high industrial development. Industrial zoning, the practice of designating an area for industrial development.



# Recreational Zone

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It includes, parks, playgrounds, theme parks, open air theater, malls and multiplex , fun world, joy rides, sport complex, water parks etc.



# Distribution of Area for Different Zones

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The usual percentage of each zone in a normal town varies as follows:

ZONE TYPE	PERCENTAGE DISTRIBUTION
Residential Zone	40 % - 50 %
Commercial Zone	2 % - 10 %
Industrial Zone	2 % - 25 %
Recreational Zone	Remaining



# How to separate zones

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## LAND USE CLASSIFICATION AND USES PERMITTED

### Clause: 3.1 *Lund Use Classification (SP7 National Building Code)*

- a) Residential zone -Purely residential
  - Residential with shop lines at ground floor (**Rz**)
- b) Commercial Zone -Local commercial area (CI)
  - District commercial area (CI)
- c) Industries -Service industries (II)
  - General industries
  - Special industries
- d) Green zone
- e) Special reservations



# There is some example showing the undesirable situations

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which might develop in the absence of zoning are as follows:

- The big apartment flats of big heights may be constructed very near to small cottages or houses and thereby, they suffer from loss of light and air for surrounding structure.
- The development centers of public interest may take place at random without any considerations of their surrounding and hence their functioning result into wastage of time, money and space.
- The unsightly factories giving obnoxious gases and untimely noises invade the residential area of the town and by the way of their working, they make the residential area unfit for living.
- The public amenities may be provided as the need arises and ultimately, a time may come when it's become either too costly or practically impossible to alter or to modify such amenities.



# ➤ TRANSITION ZONE

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- In order to have a smooth zone from one zone to another, a transition zone is sometimes accommodated in zoning.
- The transition zone links up two adjoining zones and forms a boundary between the two.
- The most important fact to be remembered is that the boundary between the two zones should be well distinguished by boundary line of plots instead of streets.



# Elements of Transition Zone

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- Railway Lines
- Roads
- Public garden
- Parks
- Canals/ River/ Lake etc.
- Playgrounds
- Fire station like essential services
- Bus stations/ Railway stations
- Government offices and premises





# Elements of Transition zone: Examples

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# ➤ ZONAL PLAN FOR MILITARY TOWNS

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The acquisition of adequate land is made to accommodate the number and types of units to be located in a military town.

## Zonal plan is most suitable places for:

To learn and train

To live and work

To play and relax.



# Detailed zoning for a military town takes into consideration the following factor:

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1. Conservation of environment.
2. Functional grouping of major and other allied sub units.
3. Location of units generating noise, smoke, smell, etc. To
4. minimize environmental ill effect.
5. Minimum distance between the place of work, residential zones and central amenities.
6. Road circulation pattern.
7. Store holding units along peripheral roads.
8. Zones for the bulk external services.



# ➤ ZONING POWER

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This is totally about the rules and regulations of town.

The Rules and Regulations power will given to the local authorities. Such power includes the land approval of proposed structure, prohibiting of the undesirable use of land, etc.

In general, it can be stated that zoning regulations are meant to improve health, welfare and convenience of community. If better result from zoning are to be expected, these powers are to be revised and elevated on liberal scale.



# Maps for zoning

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- The map showing the existing use of land marked in different colors such as residential, commercial, etc.
- The map should also show the portions of detached houses, semi detached houses, flats and apartment houses ,etc.
- It should be also marked on the map the position of all manufacturing plants, public properties, parks ,play-Grounds, etc.
- The map showing density of population in different areas of the town and expressed either as houses Per unit area should be prepared.
- The map showing land values in the different sections of the town should be prepared.
- The map showing the details gathered from traffic survey should be prepared.





# Case Study for Zoning Maps

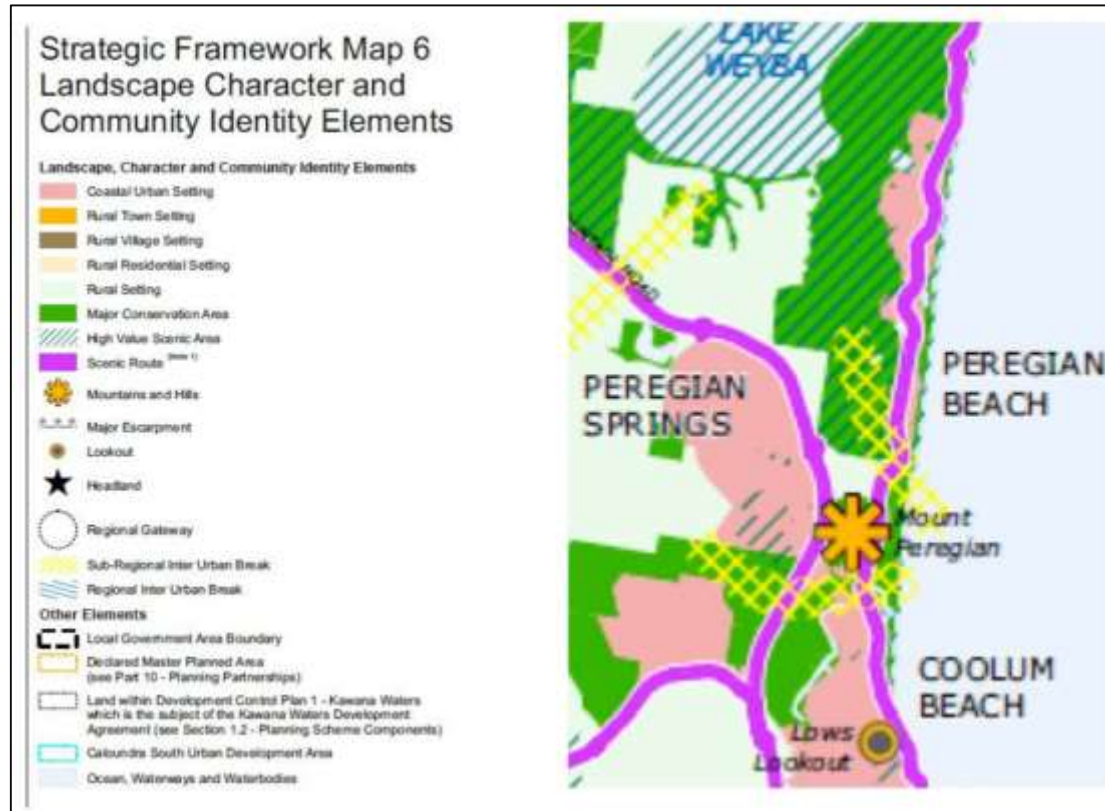
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## Peregian Beach, Queensland



# Case Study for Zoning Maps: Peregrin Beach, Queensland

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# Economy of zoning

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- One of the virtues of zoning is that great improvements could be done without serious liabilities on the part of tax-payers, if zones are pre-planned.
- Considerable amount of money will be required for land acquisition, road improvements and various other aspects of the implementation of town planning schemes.
- The same can be minimized and extra costs which might result due to charges, addition, alterations and modification after the town has been developed without zoning can certainly be avoided.
- The zoning is essential also as the basis for economy in carrying out all site planning work and local development schemes.
- It may further be noted that zoning indirectly helps in reducing costs because the use of land is known definitely and hence sewer lines, water lines and various other public services required for the town life can be designed and laid in the best efficient way





# Land use and neighborhood planning

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- Land-use zoning is the term used for a branch of urban planning encompassing various disciplines which seek to order and regulate land use in an efficient and ethical way, thus preventing land-use conflicts.
- Governments use land-use planning to manage the development of land within their jurisdictions.
- In doing so, the governmental unit can plan for the needs of the community while safeguarding natural resources.
- To this end, it is the systematic assessment of land and water potential, alternatives for land use, and economic and social conditions in order to select and adopt the best land-use options.
- Often one element of a comprehensive plan, a land- use plan provides a vision for the future possibilities of development in neighborhoods, districts, cities, or any defined planning area.



# ➤ Neighborhood Planning

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Neighborhood planning gives communities direct power to develop a shared vision for their neighborhood and shape the development and growth of their local area.

They are able to choose where they want new homes, shops and offices to be built, have their say on what those new buildings should look like and what infrastructure should be provided, and grant planning permission for the new buildings they want to see go ahead.

Neighborhood planning provides a powerful set of tools for local people to ensure that they get the right types of development for their community where the ambition of the neighborhood is aligned with the strategic needs and priorities of the wider local area.



## **Need for subdivision regulation:**

Earlier in every city much land is either vacant or inefficiently used – speculative prospect

Various methods have been proposed to emphasize taxation on land

Necessity for regulations over the subdivision of urban land was urgent, since use and development of land constitute a right bestowed by the community upon the individual, and this right may be withdrawn if he violates the conditions

# Sub division and layout

- ✓ A piece of land divided into more than 8 parcels, each of which is to be sold separately is called Layout ,
- ✓ whereas less than or equal to 8 divisions is called a subdivision of land.

# Many interests involved ...

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- ✓ To the land developer the subdividing of land is primarily a matter of profit.
- ✓ To the community, it is a matter of public concern –Activities determine quality of living
- ✓ Where such activities are uncontrolled , they place burden on public treasury – excessive cost of public improvements and maintenance, increase in cost of services

# Transforming city plan to reality

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- Many elements in the overall plan are realized at the time the land is developed
- Highways, streets and alleys, sewer and water lines , power lines, schools, transportation lines, police and fire protection ...
- The city plan is either realized or it is lost in the subdivision of land



# Subdivision procedure

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- ❑ Land is surveyed
- ❑ Officials records consulted – proposed highway, special easements, right of way etc.
- ❑ Amenities, cultural and social facilities
- ❑ Refer Subdivision ordinances
- ❑ Planner or engineer to prepare preliminary plan – include size, shape no of lots, location of streets, radii, drainage, utilities etc.



# Subdivision procedure

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- ❑ Estimate is prepared – cost of development
- ❑ Tentative map is file with local agency – approval obtained else
- ❑ Incorporate suggestion made, if any and re-submit





# Moderately Highrise zone

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Thank You !

