

Intro. to Urban Design & Plan
Arct 421
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URBANISM TYPE: NEW URBANISM

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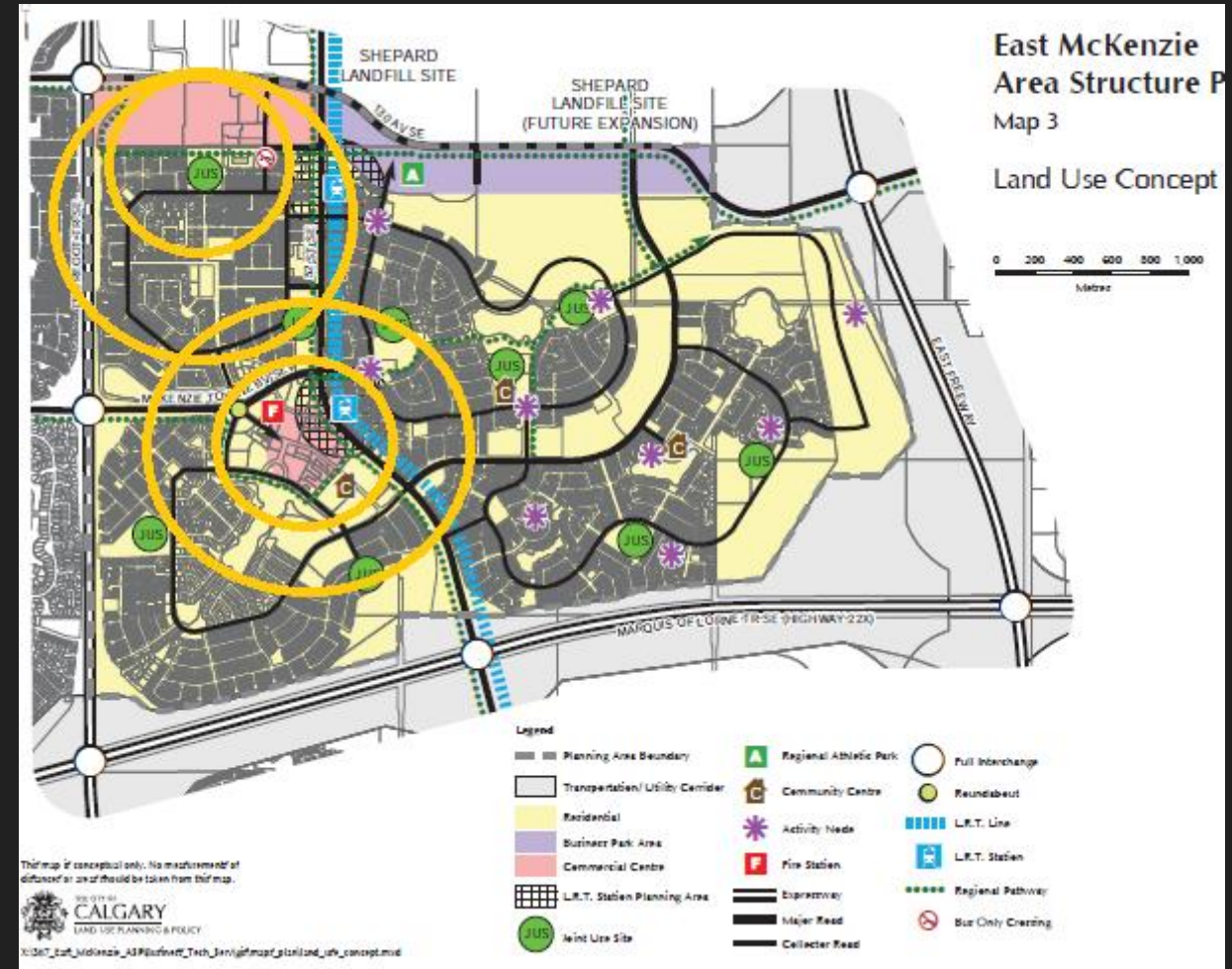
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What is URBANISM?

- Urbanism is the characteristic way of interaction of inhabitants of towns and cities with the built environment.
- Urbanism is also movement of the population to the urban areas .

What is New Urbanism?

- New Urbanism is an urban design movement which promotes walkable neighborhoods containing a range of housing and job types.
- It arose in the United States in the early 1980s, and has gradually influenced many aspects of real estate development, urban planning, and municipal land-use strategies.



What is New Urbanism?

- New Urbanism promotes the increased use of trains and light rail, instead of more highways and roads.
- Currently, there are over 4,000 New Urbanist projects planned or under construction in the United States alone.

Bicycle lane



Light Rail

Pedestrian
lane

Definition: New City

- Replacing the word urbanism with city we get a new definition.
- New city is basically a self contained and self governing city, built according to a detailed plan on an undeveloped stretch of land, typically designed to serve a mix of residential, commercial, and industrial needs.

History & Inventors

- The Congress for the New Urbanism was founded in 1993 by a group of architects creating long-lasting and better-performing neighborhoods.
- The group had worked for years to create buildings, neighborhoods, and regions that provide a high quality of life for all residents, while respecting the natural environment.
- Founders Peter Calthorpe, Andrés Duany, Elizabeth Moule, Elizabeth Plater-Zyberk, Stefanos Polyzoides and Dan Solomon came together to form the organization, and were assisted in the coordination of their effort by Peter Katz, who became the first Executive Director of CNU.

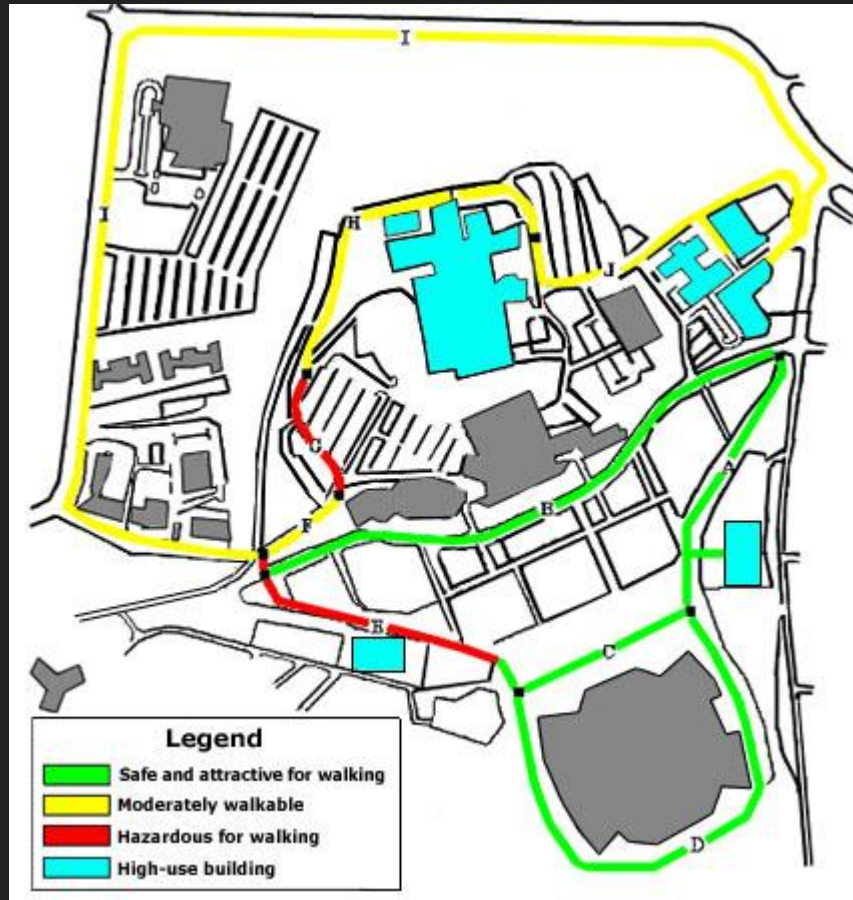


Principles of New Urbanism

1. Walkability
2. Connectivity
3. Mixed Use & Diversity
4. Mixed Housing
5. Quality Architecture & Urban Design
6. Traditional Neighborhood Structure
7. Increased Density
8. Green Transportation
9. Sustainability
10. Quality of Life

1. Walkability

- 10-minute walk of home and work
- Pedestrian friendly street design (buildings close to street; porches, windows & doors; tree-lined streets; on street parking; hidden parking lots; garages in rear lane; narrow, slow speed streets)
- Pedestrian streets free of cars



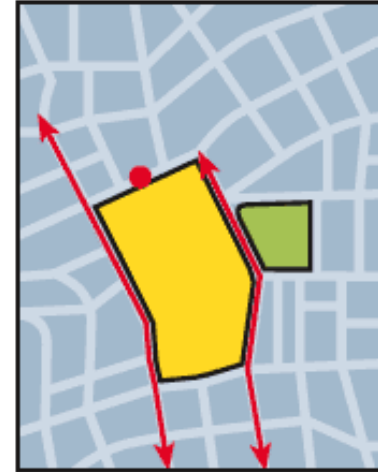
WALKABILITY MAP



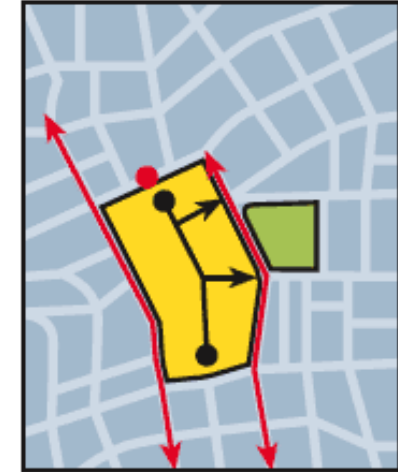
2. Connectivity

- Interconnected street grid network disperses traffic & eases walking
- A hierarchy of narrow streets, boulevards, and alleys
- High quality pedestrian network and public realm makes walking pleasurable

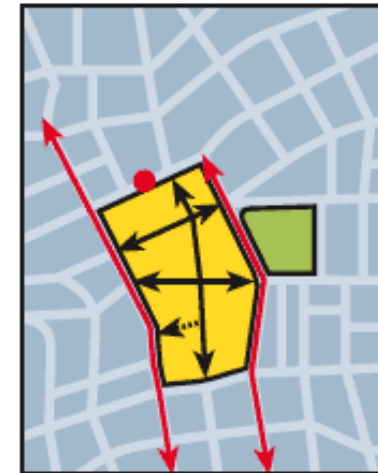
● Bus stop ↔ Principal routes ↔ Internal streets



Consider how best the site can be connected with nearby main routes and public transport facilities



The typical cul-de-sac response creates an introverted layout which fails to integrate with its surroundings



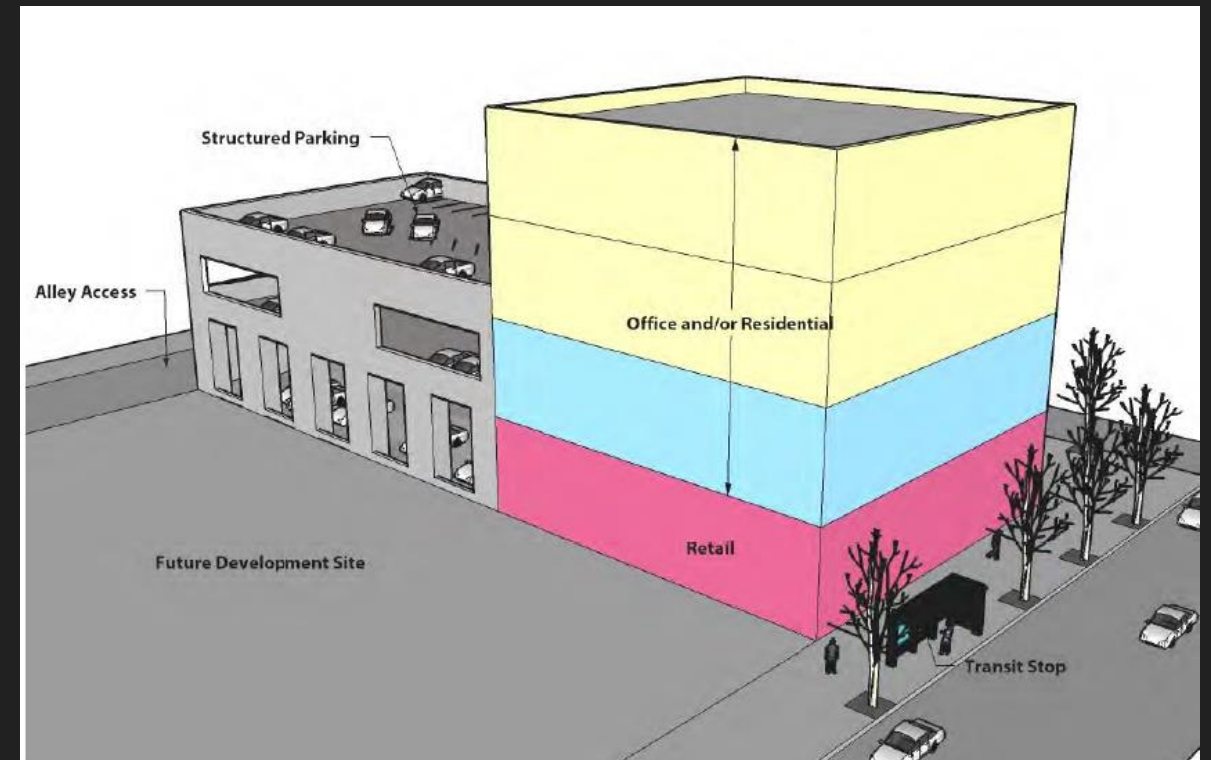
A more pedestrian friendly approach that integrates with the surrounding community – it links existing and proposed streets and provides direct routes to bus stops



The street pattern then forms the basis for perimeter blocks which ensure that buildings contribute positively to the public realm

3. Mixed Use & Diversity

- A mix of shops, offices, apartments, and homes on site.
- Mixed-use within neighborhoods, within blocks, and within buildings
- Diversity of people - of ages, income levels, cultures, and races



4. Mixed Housing

- A range of types, sizes and prices in closer proximity



5. Quality Architecture & Urban Design

- Emphasis on beauty, aesthetics, human comfort, and creating a sense of place
- Special placement of civic uses and sites within community.
- Human scale architecture & beautiful surroundings nourish the human spirit



6. Traditional Neighborhood Structure

- Public space at center
- Importance of quality public realm; public open space designed as civic art
- Contains a range of uses and densities within 10-minute walk
- Transect planning: Highest densities at town center; progressively less dense towards the edge. The transect is an analytical system that conceptualizes mutually reinforcing elements, creating a series of specific natural habitats and/or urban lifestyle settings.



7. Increased Density

- More buildings, residences, shops, and services closer together for ease of walking, to enable a more efficient use of services and resources, and to create a more convenient, enjoyable place to live.
- New Urbanism design principles are applied at the full range of densities from small towns, to large cities.



8. Green Transportation

- A network of high-quality trains connecting cities, towns, and neighborhoods together
- Pedestrian-friendly design that encourages a greater use of bicycles, rollerblades, scooters, and walking as daily transportation



Network of light trails connecting cities



Pedestrian friendly design

9.Sustainability

How it relates to sustainability?

- Minimal environmental impact of development and its operations
- Eco-friendly technologies, respect for ecology and value of natural systems
- Energy efficiency
- Less use of finite fuels
- More local production
- More walking, less driving



10. Quality of Life

- Taken together these add up to a high quality of life well worth living, and create places that enrich, uplift, and inspire the human spirit.



Case-study: Stapleton city in Denver

- A movement called Stapleton Development Plan, was made by the community itself, to utilize in the most sustainable way to develop an integrated community with the feel and function of the old Denver neighborhood.



Stapleton Site at the start of construction, in 2001

Case-study: Stapleton city in Denver



Stapleton Residential Neighborhood

SITE DESIGN



The plan was driven by the need to create integrated, mixed use, walkable neighborhoods with easy access to both retail activity centers and open space.

- Mixed-Use
- Retail
- Transit Oriented Development
- Commercial / Office
- R & D / Industrial
- Community Facilities

- Open Space / Parks
- Low Density Multi-Family
- Medium Density Multi-Family
- High Density Multi-Family
- Apartment Residential
- Townhome Residential

- 'Mansion' Residential
- Garden Court Residential
- Type 'D' (Standard & First-Time SF)
- Type 'C' (Luxury & Standard SF)
- Type 'B' (Move-Up & Luxury SF)
- Type 'A' (Custom & Semi-Custom SF)

- Future Development



Case-study: Stapleton city in Denver



Stapleton Residential Neighborhood



Mixed-Use in Downtown Stapleton

Case-study: Stapleton city in Denver



Stapleton Condos



Residential Alley

Case-study: Stapleton city in Denver



Stapleton Greenway and Trail Network

Case-study: Cherry Hill Village , Michigan

- A research has been conducted by students from Michigan state university on the cherry hill village to see if it is considered as a new urbanism city.
- First they made a list on the focus principles from new urbanism:

Planning Area	Policy Implications	Focus Principles of New Urbanism for This Study
Transportation Planning	Walkable environment	Pedestrian-friendly environment <ul style="list-style-type: none">- General condition (safety, amenity, & facilities)- Connectivity among pedestrian facilities- Suggestions for improving the pedestrian Environments
	Transit-oriented community	Public transportation <ul style="list-style-type: none">- General quality of the service- Public transportation functions as an alternative mode of automobile- Suggestions for the promotion of the public transportation market share
Land Use Policy	Zoning	Downtown revitalization Mixed-use developments <ul style="list-style-type: none">- Need of mixed-use developments
Environmental Planning	Preservation of natural environment	Preservation of natural environment and diverse open spaces.
Energy Saving	Energy efficient design for buildings, housing, & communities	Affordable housing and building design accommodating energy saving <ul style="list-style-type: none">- Consideration of energy efficient design- Regulation for encouraging energy efficient design
Others	Michigan Main Street Program	Revitalization of old streets and commercial buildings <ul style="list-style-type: none">- Importance of urban regeneration- Aesthetical consideration and municipal support for improving building façade design

Case-study: Cherry Hill Village , Michigan

- Then they listed the current applications of new urbanism in Michigan:
 1. The walk and bike Lansing program : make streets safe and convenient for walking and cycling, increase bicycle parking, provide connections between walking and cycling to public transportations, educate citizens about bicycle and pedestrian safety.
 2. Michigan Main street program: preserve historic commercial buildings and community fabric in Michigan
 3. Brownfield redevelopment: The Brownfield Redevelopment has a strong connection with new urbanism as the sites usually are developed for various usages such as commercial or mixed use.
 4. New Urbanist Community: Cherry Hill Village: Cherry Hill Village is well known as a new urbanist community that includes residential, commercial, retail facilities, and schools within a community. It is located in Canton in the southwest area of Detroit. The village was developed on 460 acres

New Urbanism Characteristics of Cherry Hill Village



Walkability



Connection



Theater and Commercial Facilities



Parks



Human Service Center (Office)



Apartments and Condos

This survey aims to explore Michigan residents' opinions on key design and planning principles of new urbanism.

Demographic Information

Gender, Age, Racial Group, Employment, Annual Income, & Residency (the Area they live in)

Questionnaire: Survey starts from here.

How are you today?

In this survey, we will ask about your opinions on several design and planning issues of your community. The purpose of this survey is to suggest better planning policy directions for your community design. Please consider your community including neighborhoods and city and respond to each question.

1. Do you live in a

- a. Town house
c. Condominium
e. Other (explain) _____
- b. Single-family house
d. Apartment

2. Do you have children age 12 or under living with you?

- a. Yes
b. No (skip # 3 and # 4)

3. If yes, how many children are living with you? _____

4. Is your children going to school by your car? By school bus? By riding a bike? By walking?

- _____
- a. Driving by the parent(s) b. School bus c. Bicycle d. Walking d. Others _____

5. Are you getting to your work place every morning by driving? By bus? By riding a bike?

- By walking? _____
- a. Driving b. Bus c. Bicycle d. Walking d. Others _____

• Nowadays our community planners adapted various benefits from seven planning issues.

Those are 1) walkable environments, 2) convenient public transportation services, 3) revitalizing old downtown areas having new condominiums and stores, 4) providing residential areas having houses and playgrounds for children, 5) providing more open spaces such as parks or sports facilities for outdoor activities, 6) preserving wild life and natural environment, and 7) providing more affordable housing considering energy saving.

To make your current community more livable and sustainable, how important the following issues should be considered by community planners? Please rank each issue from 0 to 10.

6. Providing sidewalks to have walking friendly environments

(0) Not at all important ----- (10) Very important

7. Providing good public transportation services

(0) Not at all important ----- (10) Very important

8. Revitalizing old downtown areas having new condominiums and stores

(0) Not at all important ----- (10) Very important

9. Providing residential areas having houses and playgrounds for children

(0) Not at all important ----- (10) Very important

10. Providing more parks and sports facilities for outdoor activities

(0) Not at all important ----- (10) Very important

11. Preserving wildlife and natural environment

(0) Not at all important ----- (10) Very important

12. Supplying more affordable housing having less utility payment

(0) Not at all important ----- (10) Very important

Thank you so much for your participation.

Results

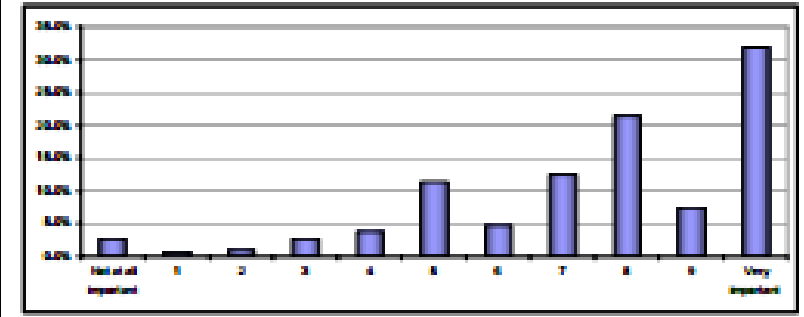
Table 8. Transportation Mode to Work / School

Transportation mode to work/to school		Frequency	Percentage (%)
Transportation mode to work	By driving own car	505	92.7
	Car-pooling, Van-pooling	11	2.0
	Bus/Train	7	1.4
	Bicycle	0	0.1
	Walking	9	1.7
	Miscellaneous	11	2.0
	Subtotal	545	100.0
Transportation mode to school	Car-pooling, Van-pooling	76	30.1
	School bus	146	57.6
	Public transportation-City bus	2	0.7
	Bicycle	3	1.3
	Walking	20	7.9
	Miscellaneous	6	2.4
	Subtotal	254	100.0

Table 9. Opinions on Walkability, Public Transportation, & Downtown Revitalization

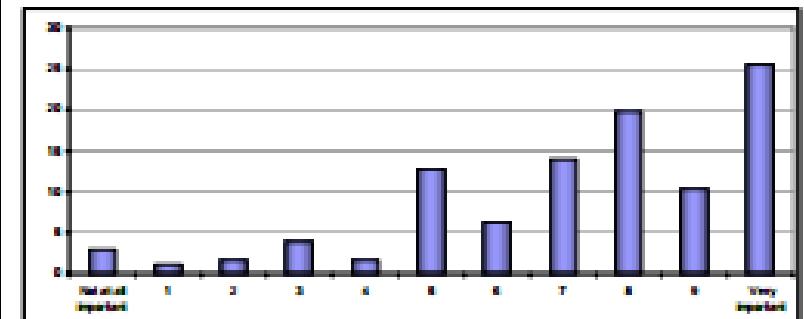
Principle	rank	Not at all	1	2	3	4	5	6	7	8	9	Very Important
Providing sidewalks	n	26	7	10	26	38	112	47	124	213	74	317
	%	2.6	0.7	1.0	2.6	3.8	11.3	4.7	12.5	21.5	7.4	31.9

Providing
sidewalks
and
pedestrian
friendly
walking
area



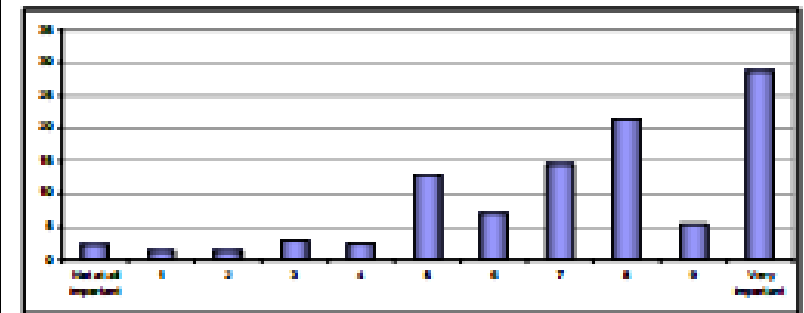
Providing good public transportation services such as more frequent bus services and more

	Not at all	1	2	3	4	5	6	7	8	9	Very Important
n	30	11	15	39	16	126	62	137	195	102	251
%	3.0	1.1	1.6	3.9	1.6	12.8	6.3	14.0	19.8	10.4	25.5



Revitalizing old downtown areas by either renovating or constructing new

	Not at all	1	2	3	4	5	6	7	8	9	Very Important
<i>n</i>	22	12	12	29	23	127	69	144	212	54	285
%	2.6	0.7	1.0	2.6	3.8	11.3	4.7	12.5	21.5	7.4	31.9



Benefits of New Urbanism

1. BENEFITS TO RESIDENTS:

- Higher quality of life
- Better places to live, work, & play
- Less traffic congestion & less driving
- Healthier lifestyle with more walking, and less stress
- Close proximity to main street retail & services
- Close proximity to bike trails, parks, and nature
- Pedestrian friendly communities offer more opportunities to get to know others in the neighborhood and town, resulting in meaningful relationships with more people
- More diversity and smaller, unique shops and services with local owners who are involved in community

Benefits of New Urbanism

2. BENEFITS TO BUSINESSES:

- More profits due to spending less on advertising and large signs
- Better lifestyle by living above shop in live-work units - saves the stressful & costly commute
- Lower rents due to smaller spaces & smaller parking lots
- Healthier lifestyle due to more walking and being near healthier restaurants

Benefits of New Urbanism

3. BENEFITS TO DEVELOPERS:

- More income potential from higher density mixed-use projects due to more leasable square footage
- Less need for parking facilities due to mix of residences and commercial uses within walking distance of each other.
- Faster sell out due to greater acceptance by consumers from a wider product range resulting in wider market share

Benefits of New Urbanism

4. BENEFITS TO MUNICIPALITIES:

- Less traffic congestion due to walkability of design
- Less crime and less spent on policing due to the presence of more people day and night
- Less resistance from community
- Greater civic involvement of population leads to better governance

Relevance to Urban Planning & Design in Doha

- Since Doha, has a major issue which is traffic and the difficulty from going to one place to another even if this place is in front of you.
- First I am going to list the barriers or the difficulties we face in Doha that is avoiding us to implement new urbanism:
 1. Sprawl : expansion of human population away from central urban areas.
 2. Single-use communities
 3. Social Isolation and dependence on the automobile

Relevance to Urban Planning & Design in Doha

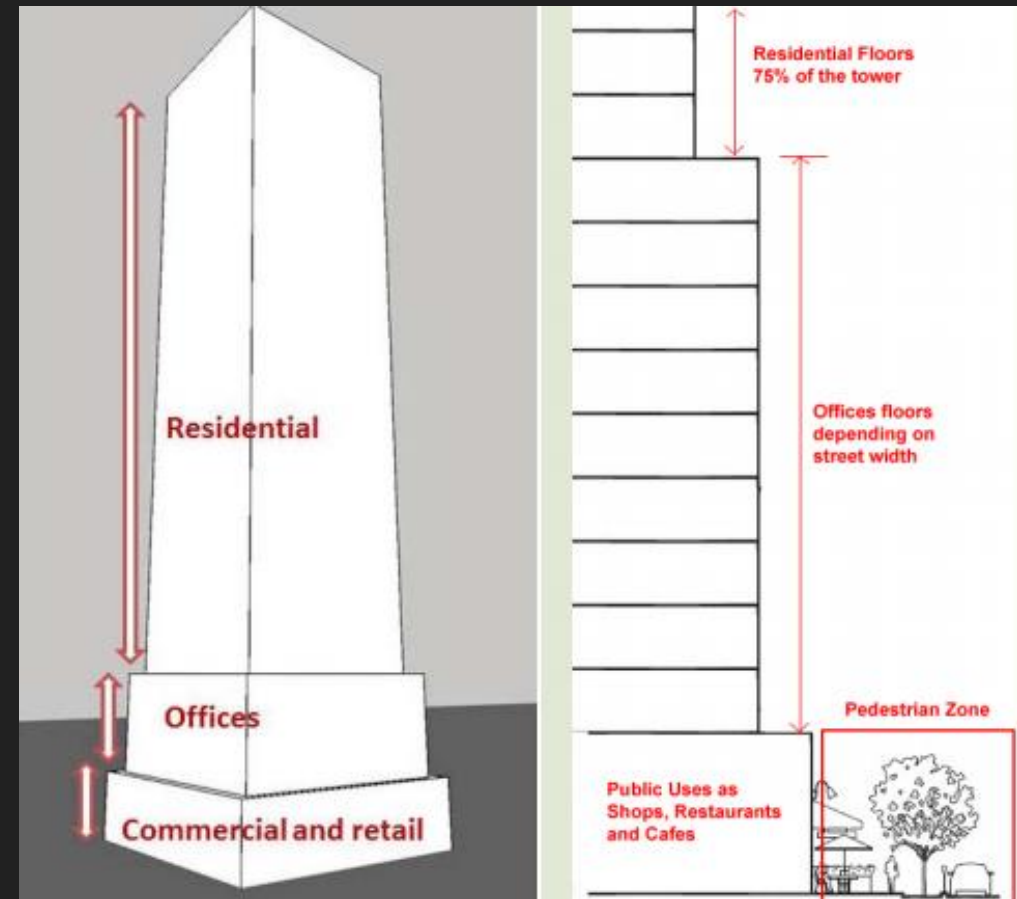
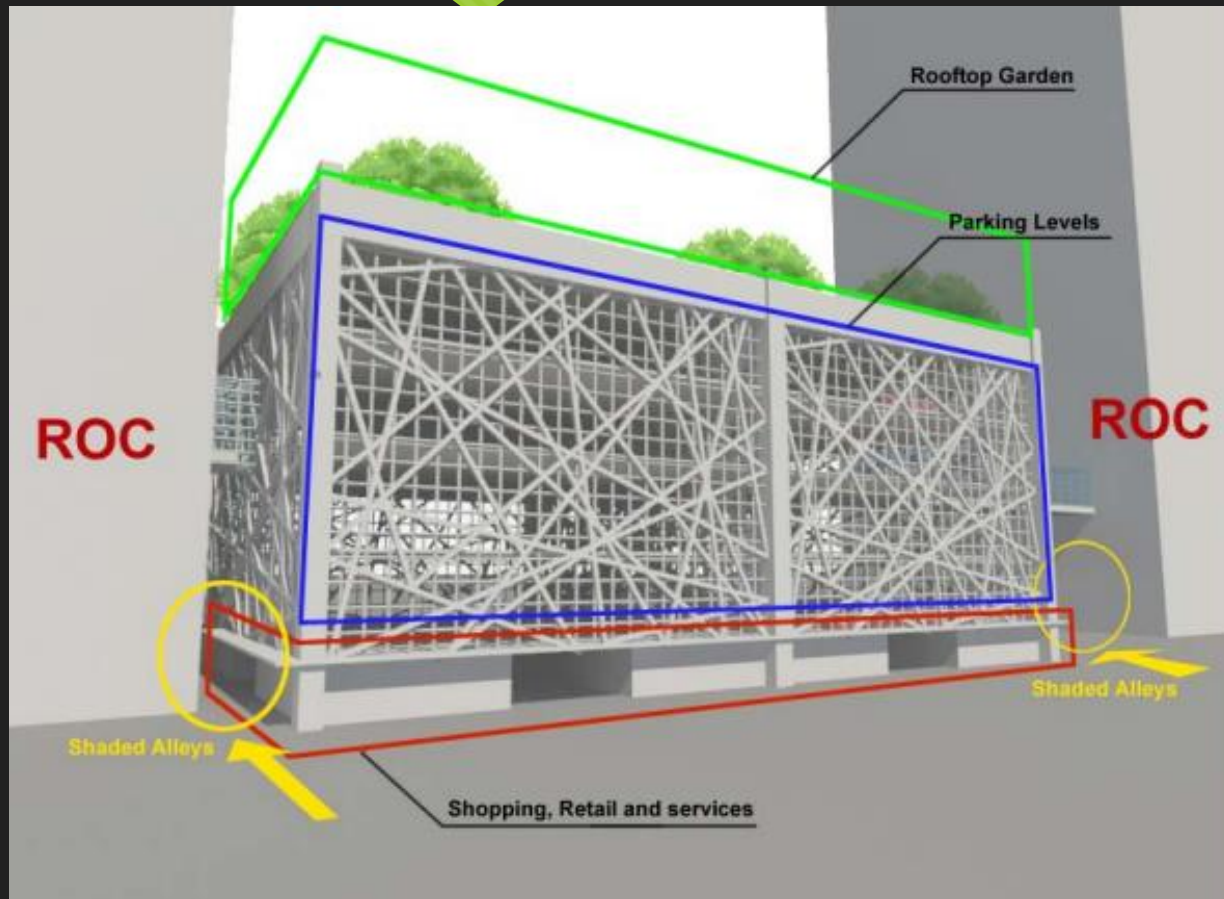
- Solutions that may help to implement New urbanism in Doha:
 1. Create a continuous network of urban communities: by having more housing in West bay to make it feel more like a community.
 2. Mixed-use community: an option would be having shops or restaurant on the ground floor and housing on the top floors. Or by having connections between houses , work, shops only by walking.
 3. To not be dependent on the automobile, this can occur if all the facilities are close to one another and there is no need for an automobile, and if that cannot happen a trail way can be an option to connect the communities to main road in which there will be a public transportation that can take them to their destination
 4. In the west bay area have more side walks and more open pedestrian areas with different activities. And instead of office buildings make them mixed use.

Relevance to Urban Planning & Design in Doha



Proposals done by Arch. Maha Sobhey in the West Bay Area

Relevance to Urban Planning & Design in Doha



Proposals done by Arch. Maha Sobhey in the West Bay Area

Conclusion

- New urbanism is basically creating walkable neighborhoods containing a range of houses, offices, and shops.
- New urbanism consist of 10 principles.
- It is related to sustainability by promoting eco-friendly technologies, less use of finite fuels, more local production, and more walking less
- Two case-studies have been presented one in Denver and one in Michigan.
- New urbanism benefits different people : residents, businesses, developers, and municipalities
- New urbanism is relevant to the urban plan of Doha in many ways: Doha segregates the city from the residential and people barely walk. Therefore, there are certain proposals to make Doha a more dense city with residential, commercial, and office neighborhoods, with more usage of pedestrian lanes.

Sources Used:

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LIVABILITY OF HIGH-RISE DISTRICTS Case Study of West Bay in Doha by Arch. Maha M. Sobhey Abdelbaset