

## **Traditional Neighborhood Development Indicator of Sustainable Urban Landscape**

### **Case Study: Sarshoor Neighborhood of mashhad**



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#### **Abstract**

Urban Landscape as a system of main system of urban morphology organizes and manages the influence of people and urbanization ; and as a concept of being dynamic , more than a subject of urban planning and designing , is growing sustainability . urban landscape containing social and cultural meaning and sense of place pays attention to the social-spatial structure instead of to the pure facial one . sustainable urban landscape paying more attention to the creation of urban places , responding to ecology , economical welfare and collaborative living , than urban environmental aestheticism and artistic location of its objects has four practical roles : objective aestheticism , subjective , perceptual and ecological ones . The general structure of sustainable urban landscape can be considered as the sustainable place in which four elements : physics , activity , imagination and eco-system , create urban landscape harmoniously. Traditional neighborhood of new urbanism , using the criterion of pedestrian-led neighborhood , perception urban landscape in scale of pedestrian movement and local capacities and resources (such as artificial , natural , and cultural ones ) provides complete sustainable recycle of life patterning nature on different levels such as the form and process of natural systems . This research surveys 3 factors : human behavior , conceptions and physical indicators and the relationship between them by using observation , collecting questionnaires to be answered by the residents and users of space , in order to identify and determine the social acceptance of urban landscape in sarshoor neighborhood of mashhad and also to present structure of proposal traditional neighborhood considering criterion of increasing efficiency , vivacity and the amount of possible occurrence of the plan.

**Keywords :** New Urbanism , Sustainable Urban Landscape , TND Approach , environment  
Sustainability , Sarshoor Neighborhood of mashhad

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## 1. Introduction

A city as a complex and dynamic organism is always changed and transformed, it's a place that forms human's ideals and experiences and has a serious role in providing it's resident's welfare, health and relaxation. Our today's urbanization is a product of ideas, thoughts, experiences and actions that has been obtained by different generations at historical period. " habib, 1996 ". By appearing the effects of current changes and their contradictions; actions to solve problems of new urbanism became necessary, this paradigm rose from the united states of America and was the end of city dispersion and a movement to substitute mechanical life and a return to traditional designing. Through the first two decades of 20th century, cities of America improved as compact neighbourhood with mixed uses but this matter began to change on the basis of zoning necessities and modern architecture and increasing cars and after the second world war, a new development system was formed in America based on displacing neighbourhoods together with serious landuse isolating and often know as an development or csd. Although this development with public welcome and yet the most American residents live in suburbs built recent 50 years, but it had main expenses too: lack of Pedestrian areas in downtown or, increased use of suburbs lands for sparse population and increased use of cars for each one because they were necessary to access them to the city. New urbanism is a reaction to this distribution and placed on principal base of urban programming that cooperate to make a human scale and Pedestrian complexes, and apply various utilizations, some of them focus only on renovating projects, some on traffic planning and some try to change suburbs. But all of them believe that traditional neighbourhood have the ability to stablish functional and sustainable complexes. This style strengthen it's roots in independent architectures and programmers' workes at 70 and 80 decades that cooperated with each other at 90 decade in a unity group and include traditional design and combining them with modern era sensitivity, and after a short time, they had important efforts on cities. New urbanism has stablished adjusting conditions that include protecting Pedestrian areas with human scale against modern business and residential products and is competition with expanding old suburbs.

### Benefits of New Urbanism

New urbanism has brought making and rehabilitating diversity of societies with higher density mixed-use, dynamic landuse and having walk ability that has been composed of the same elements-like common developments together in a more complete model and improve them in the form of complete societies that include building, work places, shops, leisures, schools, parks and residents' required urban facilities for daily living in a distance with access to sidewalk and increased use of green transportation instead of roads and highways. In fact; the international movement is to reform built areas' design that seek for improvement quality of life and standards by making better areas and it can be named " Lost Art Revival in making place " and neccessairly rearranging the made area to

more complete form than those by which societies made . Benefits of new urbanism for stakeholders is presented at table 1 .

BENEFITS TO MUNICIPALITY	BENEFITS TO DEVELOPERS	BENEFITS TO BUSINESSES	BENEFITS TO RESIDENTS
<p>Less spent per capita on infrastructure and utilities than typical suburban development due to compact, high-density nature of projects</p> <p>Greater civic involvement of population leads to better governance</p> <p>Less incentive to sprawl when urban core area is desirable</p> <p>Increased tax base due to more buildings packed into a tighter area</p>	<p>More income potential from higher density mixed-use projects</p> <p>Cost savings in parking facilities in mixed-use properties due to sharing of spaces throughout the day and night</p> <p>Greater acceptance by consumers from a wider product range resulting in wider market share</p>	<p>Increased sales due to more foot traffic</p> <p>More profits due to spending less on advertising</p> <p>Better lifestyle by living above shop in live-work units</p> <p>saves the stressful &amp; costly commute</p> <p>Economies of scale in marketing due to close proximity and cooperation with other local businesses</p> <p>Lower rents due to smaller spaces</p>	<p>Better places to live, work, &amp; leisure</p> <p>Less traffic congestion &amp; less driving; Healthier lifestyle with more walking</p> <p>Close proximity to main street retail &amp; services</p> <p>Close proximity to bike trails, parks, and nature</p> <p>Pedestrian friendly communities offer more opportunities to get to know others in the neighborhood and town, resulting in meaningful relationships with more people, and a friendlier town</p> <p>More freedom and independence to children by More suitable space to enjoy that will remain open space</p>

Table no-1: benefits of Traditional Neighborhood Development for stakeholder

## 2. Data and Material

### Sarshoor , an ancient neighbour hood in the downtown of mashhad

Sarshoor neighbourhood and it's famous bazaar formed historically from 1861 to 1969 and it was well-known as one of main district in the city and grandees people lived there . Sarshoor bazaar as one of the main bazaars in the city has provided suitable pedestrian route for pilgrims and neighbours by connecting to the carpet bazaar and the 8<sup>th</sup> imam shrine which has made this district to brisk up . The bazaar has been the residence of many traders and great persons at it's brisk period . This district is one of ancient and historical places in mashhad that because of being placed close to three centers : cultural-pilgrimage razavi complex , business-tourist in the imam reza street and official-historical in the arg street ; it's rehabilitation and renovation as a deteriorated urban area in a city , is more important . Being the great shrine of the 8<sup>th</sup> imam with a bout 14 million pilgrims close to this district and the presence of more pilgrims all times followed by their service necessities , specifications and the way how to face the engage urban planning and designing make it different from other places . (figure no.1 shows functional relationship between sarshoor district and mashhad downtown )

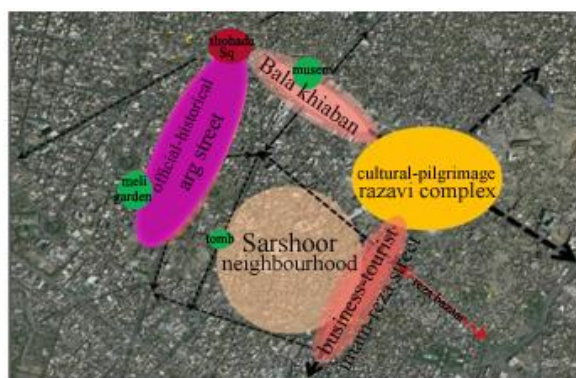


Figure no.1 : The functional relationship between sarshoor district and mashhad downtown

Closing the under-study district to razavi shrine ; makes increase of service landuse , cultural and religious landuse like hoseinieh , mahdieh , offices of notables authorities , mosques and occupation of great areas by service and economical activities and causes unbalance of biology and make stranger and unstable district .

economic	Social & Cultural	Landmark visual element	Connectivity	Functional	Frame work	criteria
						District's strength
						District's weakness

Table no-2: The district's strength and weakness has been show by field observations

In order to systematize studies and assessment walkability of this district , ( figure no.2 shows analyzing urban landscape )

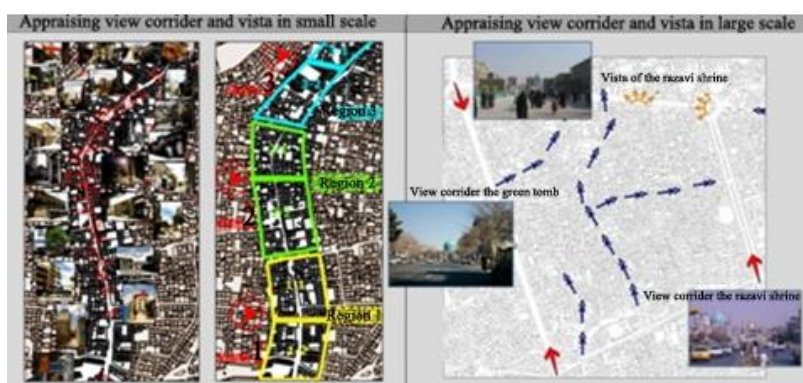


Figure no.2 : The appraisalment of the urban landscape in small and large scale and it's sequencing

### 3. Research Methodology

#### Feasibility of Newurbanism rules in Sarshoor neighbourhood

In order to improved quality and gain live again to sarshoor residents Feasibility and conformity of new urbanism traditional neighbourhood structure with sarshoor structure . A structure that can provide required city's facilities to daily life in a walkability distant .



### 1. Walkability:

Street must provide necessary possibilities for walking from home to work in 10 minute as pedestrian , narrow and by slow movement . In this structure building must close to street and in direction to trees that have hidden parkings and are mixed-used and this structure can formed by strengthening central axis .

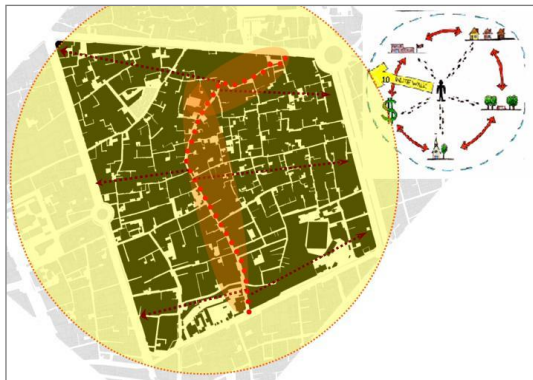


Figure no.3 : The appraisalment of the Walkability of sarshoor district

### 2. Connectivity :

Hierarchal and connected network of passages , dispersed traffic and make suitable public area for walking . Walkability in an area with available connective network must strength from the view point of quality .



Figure no.4 : The appraisalment of the connectivity of sarshoor district

### 3. Mixed-used and Diversity :

Mixed-used within neighborhoods , within blocks and within buildings describe diversity of shops , offices , apartment , houses and people diversity by age , income levels , cultures and races , percentage of present landuse ; mixed functional and diversity of social groups in this district .

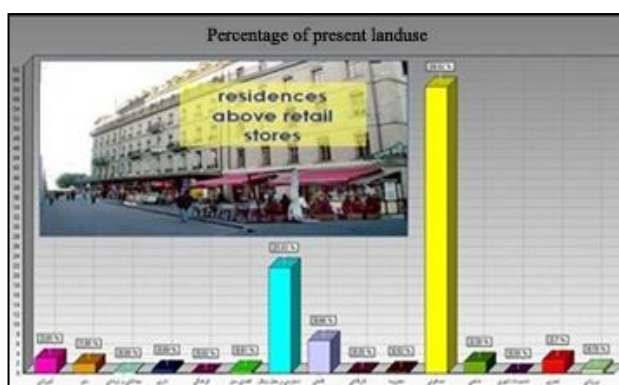


Figure no.5 : The appraisalment of the mixed-use & Diversity of sarshoor district

#### 4. Mixed-housing:

A spectrum of models , sizes and prices close to each other , investigating quality and parts square show that current situation include various and expand spectrum .



Figure no.6 : The appraisalment of the Mixed-housing of sarshoor district

#### 5. Quality architecture and urban design :

Architecture with human scale and beautiful surroundings ; nourishing human spirit. Emphasis on beauty , fine arts , human relaxation and spatial placing city's facilities and places in a society is local . Occupying areas by servicing and economical actions , disrupt biological balance and form strange and unstable area that require making quality and return nature to movement axes according to picture below.



Figure no.7 : The appraisalment of quality urban design with human scale of sarshoor district

#### 6. Traditional Neighborhood Structure :

Distinguishable center and edge and public open space at center become spectrum of uses and density in a 10 minute walking . Transect planning : highest density is at town center and progressively less dense towards the edge. The transect is an analytical system that

connect elements that strengthen in two side and make a series of natural habitats and urban lifestyle settings. Specific border between natural and artificial will disappear and giving ability to ecologists to assessment human habitat issue . Intelligent code cause development through coding favourite result in a special place and these codes design for local grading of towns and districts and compacted city's area and open village lands as a code base on shape , while reform destructive dispersion and use to control and form cities and mixed-uses districts , compacted : under study district place at code T5 by live edge and also offer a outline after evaluating people's believes about district's urban landscape .

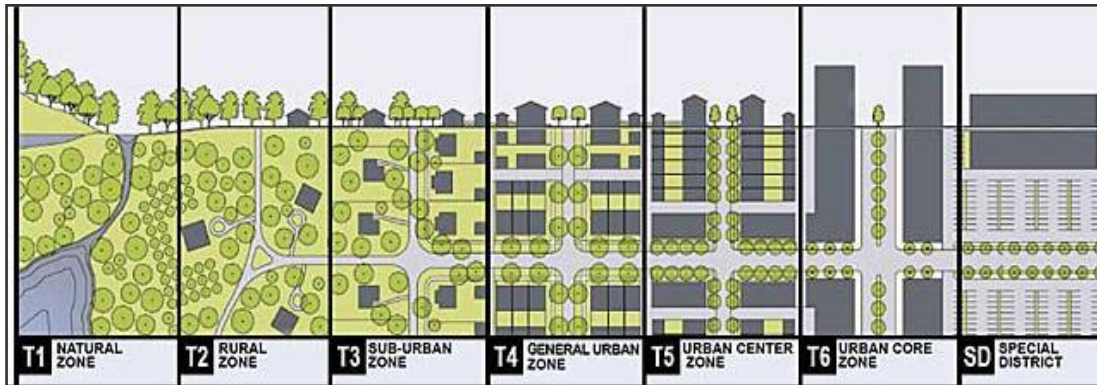


Figure no.8 : Intelligent code of development (Transect planning)

## 7. Increased Density :

More buildings , residents , shops and closer services to each other for walking easier ; facilitate better uses of services and resources that make comfortable situation for life . This district has suitable functional density with considering land's uses and social groups .



Figure no.9 : The appraisal of density of sarshoor district

## 8. Green Transportation :

Pedestrian-friendly design that encourages a greater use of bicycles and walking as daily transportation and a network of public vehicles with high quality that connect districts to each other.

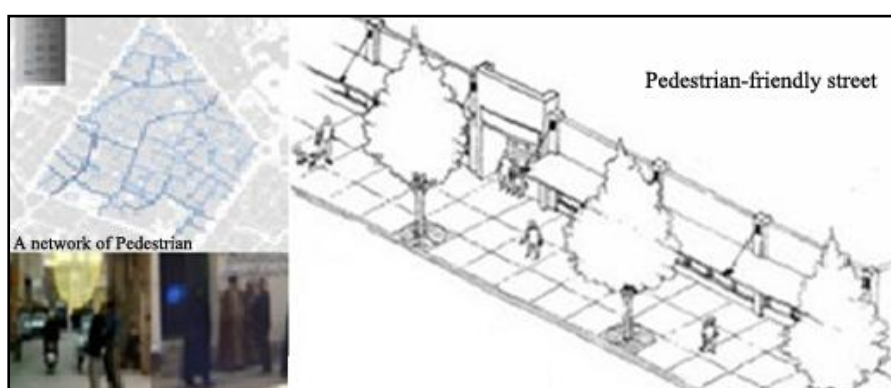


Figure no.10 : The appraisalment of Green Transportation of sarshoor district

**9. sustainability :**

Development and it's operations must have lowest environmental impact and interest of native Technology and consider natural systems , Energy efficiency, Less use of finite fuels and more local production .

**10. Quality of life :**

Improving life standards and making better areas that nourishing human spirit and excite them .

**4. Results and Analysis**

**Execution programming and implementation new urbanism in sarshoor neighbourhood**

The most effective way to implement New Urbanism is to plan for it and making structural change according to traditional neighborhood structures and write it into zoning and development code but at first must assessment of the structure built during last and extract achievement obstacles in executing the sustainable traditional neighbourhood principals , and one of most important of them is incorrect region coding , that use in municipality now and prevent executing new urbanism principals and only cause crowding , traffic and deteriorated urban area in district . Sustainable traditional structure models will execute on under study district by focus on evaluating performance power of these models in sustainable traditional neighbourhood scale and then offer unitary development plan by functional codes considering according to figure no.11.

C model	B model	A model	
			models
			aplanment
decrease permeability of automobile ride to district	systematic structure through under study district Hierarchical of accessibility and functional landuse residents and user of district have access to public transportation	response to Hierarchical of functional landuse functional landuse located base on central street	strength
decreast traffic separate automobile ride from pedestrian Accessibility Pedestrian-friendly design	decrease accessibility of automobile ride to district not available connective network of automobile ride unit center would destroy the section of beazar	destroy the framwork the cause of crowded central street	weakness

C	B	A	coefficient	Assessment criteria	
6	12	15	3	intervens in framwork	amount of possible occurrence
4	12	12	2	Cost	
8	10	10	2	response to functional problems	increasing efficiency
15	12	12	3	response to trafficless	
8	15	6	2	legibility	increasing vivacity
6	10	10	2	measurable & identify	
8	8	10	2	attractively lively	
5	4	5	1	diversity	
60	82	80		Total of score	



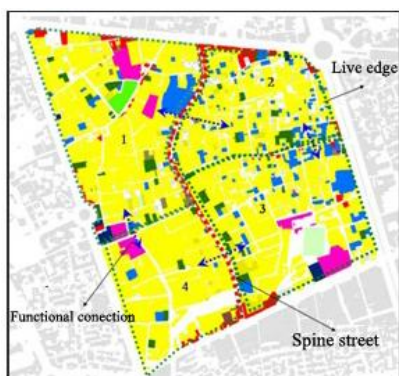


Figure no.11 : The process is offered to implementing TND

Some of effective social and framework indicators from sustainable urban landscape gave in table 3 and also gave their results from the viewpoint of local residents in a questionnaire in table 4.

Connectivity	Urban grain	Permeability	Framework Indicators
Type of building	Quality of building	architecton of building	
literacy rate	sex ratio	Population density	

Table no-3: Effective social and framework indicators of sustainable urban landscape

Placing in close to nazavi complex	influence value of pilgrim	influence value of hotel	influence value mosque	Income level	Satisfaction from the district	Facility deficiency	District's problem	View point of resident about district	resident time in district (year)	education stand	job classification	Number of resident in unit	Urban grain	Range of criteria
high	high	high	high	high	high	minimum	minimum	positive	more than 20	higher education	professional	less than 3	more than 150	suitable
medium	medium	medium	medium	medium	medium	normal	normal	inactive	5-20	diploma	mid-pro	3-5	100-150	mid-suitable
low	low	low	low	low	low	max	max	Negative	less than 5	primary education	tyro	over than 5	less than 100	unsuitable
ineffective	ineffective	ineffective	ineffective	ineffective	ineffective	---	---	---	other	illiterate	unemployed	reception pilgrim	---	other answer

Table no-4: The results of the viewpoint of local residents about sustainable urban landscape

## 5. Conclusion

The sustainable urban landscape in down town must provide conditions that restore down town to the city while supplying the residents' requirements. From investigation of the sustainable traditional neighbourhood principals, it can be found that three factors; human's behavior, framework indicators and descriptions and the relationship between them have important roles in social identification and acceptance sustainable urban landscape.

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- [www.pedbikeinfo.org](http://www.pedbikeinfo.org) Pedestrian and Bicycle Information Center (PBIC)
- [www.tlcnetwork.org](http://www.tlcnetwork.org) Transportation for Livable Communities
- [www.transact.org](http://www.transact.org) Surface Transportation Policy Project ,
- [www.walkinginfo.org](http://www.walkinginfo.org)