



QUID 2017, pp. 2171-2781, Special Issue N°1- ISSN: 1692-343X, Medellín-Colombia

PLANNING OF WORN- OUT CONTEXT OF RESIDENTIAL DISTRICTS USING PASSIVE DEFENSE APPROACH

(Recibido el 12-07-2017. Aprobado el 25-09-2017)

Saeed Nikoomaram
Islamic Azad University, Ph.D.
*Student of Urban Planning, South
Tehran*
Branchsnikoomaram@yahoo.com

Abstract. Unpredictable events annually have a major contribution on the financial and life damages in the world. Today, one of the problems in preserving human and material resources and the development of countries is the occurrence of natural or unnatural disasters that the lack of proper management to control and counteract them will increase the area and extent of damages caused by crises. On the other hand, urban worn-out context is also considered particularly in planning and urban management interventions due to the type and degree of worn out and the possibility of high degradability. The district of western division in Tehran as one of the worn-out context of the city has improper conditions such as lack of facilities, lack of public users, unsuitable passages and the high percentage of residential buildings and requires planning to improve the conditions of a district. Planning of these context with passive defense approach provides the possibility to minimize the reduction and elimination of many problems by considering the principles of passive defense to prevent the injuries when occurring threats while improving conditions. This research is to plan for the worn out context of Tehran's western division district with passive defense approach conducted using the descriptive-analytical method. The results of this study show that by cases as retrofitting buildings in the worn out area and proper distribution of the users and the transfer of vulnerable users from the area as well as improving the worn out districts can affect its vulnerability against the crisis.

Keywords: Planning, Worn Out Context, Passive Defense, Western Division District, Tehran.

Citar, estilo APA: Nikoomaram, S. (2017). Planning of worn- out context of residential districts using passive defense approach. *Revista QUID (Special Issue)*, 2171-2181.

1. INTRODUCTION

Since the end of the World War II, in many countries of the world, the new passive defense has been raised and considered as a non-military strategy to reduce the vulnerability of urban facilities, infrastructure, and manpower (Kamran, 2012, 217). Today, with advances in the weapons technology and military equipment, urban residential areas are more at risk of invasion. One of the most important factors in increasing human casualties in military attacks to urban areas is the non-standard and non-conformist architecture of housings with principles such as optimal location of the building, proper dispersion of the building, observance of the concealment principles, camouflage and deception, the degree of high refinement of the building and internal architecture of building in relation to passive defense. The use of passive defense alongside active defenses is essential and inevitable and by providing passive defense can prevent heavy damage to critical and important centers of the country by adopting necessary measures and reduce the possible damages. Today, the passive defense as one of the most effective and most sustainable methods of defense against threats is considered by most countries of the world (Kamran, 2012, 77). The national resistance threshold, deterrence, durability, and survival of the city are a function of defense measures that ensure the city against all kinds of human and natural threats (any threat requires its particular measures). (Kamran, 2012, 217). Passive defense is one of the branches of crisis management that is the type of crisis associated with that war. More than 26 disciplines of polymers and architecture to urban planning are used in it (context of city, city form, urban structure, regional structure, land use, housing, environment, transportation, land preparation, location, etc.). (The same source, 218) Therefore, passive defense includes a set of unarmed measures and plans that are prepared and implemented before the onset of an offensive and during peacetime, the main purpose of which is to reduce the loss of life, financial, promotion of the level and defensive efficiency of projects and plans during the invasion of the enemy, in the meantime housing projects and plans are not excepted, but the application of the principles and rules governing the passive defense in the design and

construction of housing has great importance (Kamran, 2012, 76) The use of measures and considerations of passive defense, in addition to the sharp reduction of costs will be increased defensive efficiency of plans, goals and projects at the time of enemy's invasion (the same source, 78).

The subject of this study is the crisis caused by the war in residential areas with worn out context. In most wars, one of the goals is to raise war to civilian areas, especially urban centers. The rise of wars with residential areas is often accompanied by widespread destruction and high human casualties that in the absence of major plans and measures in peacetime, during peacetime, these casualties are doubled. Major factors of increasing the number of casualties during military strikes are security sabotage and the occurrence of unexpected and natural disasters in urban areas, high vulnerability of buildings, due to improper planning in housing, inappropriate spatial structure and construction, engineering problems of building (Unsafe strengths and structures), inappropriate architecture (unpredictability of shelter, open spaces, etc.), non-standard communication networks, and so on. Therefore, considering key principles of passive defense in buildings is considered as a basis for sustainable development in urban areas. Destruction of structures and buildings, the network of roads and accesses, the basic facilities of water reservoirs, power plants, telecommunication lines, electricity, water, gas, etc. are among these are injuries. By cleverly integrating of natural elements, architectural elements, and passive defense principles, these risks and threats can be minimized to a minimum. Therefore, the non-implementation of passive defense considerations in the formulation of patterns, policies, plans and housing designs will increase Human casualties in military threats (the same source, 77).

1.1 Theoretical Foundations

1.1.2 Worn-Out Context

Urban worn-out context is located in remained bodies in old context or is the result of deploying subordinate people in the inner and outer lands that have been integrated with the development of cities (Kul Abadi, 2008: 7). These textures refer to areas of the legal area

of cities that are vulnerable due to physical worn out, lack of proper access to cars, facilities, services and urban infrastructure and have decreasing spatial, environmental and economic value and because of the poverty of residents and their owners have no possibility of renovation, and investors have no incentive to invest in it (Habibi, Pourahmad, and Meshkini, 2007: 66). Therefore, the basic criteria for identifying and recognizing such context are as follows (Ministry of Housing, Urban Planning, 2005):

§ Instability: A block that is at least 50% of worn out buildings, inappropriate biologically and habitually with vulnerable. In other words, it is a block that at least 50% of its buildings are non-resistant, due to the lack of proper structural system and non-compliance of technical standards.

§ Diversification: A block that at least 50% of its property has an area less than 200 square meters.

§ Impermeability: A block that is at least 50% of the width of the impassable passageways or width of fewer than 6 m or its impermeability coefficient less than 30%.

Worn out is divided into two parts: relative and complete worn out. Relative worn out is a worn out that penetrates in one of the most important elements of urban space, i.e. body or activity, and consequently causes the relative worn out of urban space. Complete worn out is a worn out that penetrates in both elements of the urban space, i.e. the body and its activity, and consequently, causes complete worn out of space. So, worn out penetrates either in the "body" or "activity" or in "body and activity" simultaneously (Habibi and Maghsudi, 2012:15).

2. THE CONCEPT OF DEFENSE

2.1. Active Defense

Defense is an integrated concept that includes two parts of the active and passive defense. The active defense includes all projections and defensive measures that involve the use of weapons and war equipment. According to the law, this act is the inherent duty of the armed forces (Behtash and Aghababaei, 2011: 17).

2.2 Passive Defense

Passive defense is a set of planning, designs, and actions that reduce vulnerability against enemy threats.

Passive defense in an urban community is reducing vulnerability and increasing security and providing flexibility in a variety of situations and timely responses to save lives of man, people, and places to effective protection from the lives of the inhabitants of a city against bombing (Azizi, Bornafar, 2012: 11) and in fact the most peaceful and most reasonable defense method that reduces financial losses to vital and critical military and civilian equipment and casualties (Kamran et al, 2012: 5). In fact, passive defense is more emphasis on "pre-crisis management"; and in general, any non-armed action that reduces the vulnerability of human resources, buildings, facilities, equipment, documents and arsenals of the country against the crisis with "natural factor "(drought, flood, earthquake, thrust, slipping and storm), and" human factor "(war, internal revolt, sanctions) are called" passive defense ". Most domestic theorists have interpreted passive defense with an emphasis on the adversary defense dimension against enemy sentences (human factor) (Hosseini Amini, 2010: 131).

Passive defense is unarmed measures that reduce the vulnerability of manpower, buildings and facilities, equipment and urban arteries against enemy hostile and destructive operations. Of course, this definition can also be used for unexpected events (Rubin Chunches, 2007).

3. PASSIVE DEFENSE CRITERIA

3.1 Camouflage

The overall concept of camouflage is the same color and formation of facilities and equipment with the surrounding area, for example, facilities that are located adjacent to residential areas, are easily visible and identified.

Hiding: in which the object is completely hidden by physical covers such as camouflage tour (Ramana, 1999: 62).

Assimilation: In assimilation, devices around and above the object is used so that goal to be a part of the field (Ramana, 1999: 68).

Bastardization: It is a change in the appearance of the target and the use of deceptive and deceptive equipment at a reasonable distance from the target.

3.2 Compatibility of Users

In terms of passive defense in the field of users' deployment, two or more adjacent users should have

the least vulnerability, in addition to not interfering and preventing from other's activities.

3.3-Fortifications

Establishing any protection that resists against direct damage of rockets, missiles, bullets, artillery, mortars, or shrapnel, prevents damage to persons or equipment is called fortification. (Movahedinia, 2007: 78).

3.4 Defensive Location

It is the selection of the best and most desirable point and place of deployment, so that it makes possible to conceal and hide the manpower, equipment, and activities in the best way (Movahedinia, 2007, 75). In connection with the location of the facilities, various factors such as the population of the area, access routes, topographical and climatic conditions, the status of neighboring users and their distance from each other, and the amount of green and open spaces around the facilities have significant importance (Fazelnya, 49: 2012).

3.5 Dispersion

The expansion, open and distribution and decentralization of forces, equipment and facilities or activity to reduce their vulnerability to enemy operations so that a set of them does not form a single target for the enemy.

3.6 Division and Displacement

Separating, expanding people, equipment and activities from the point of deployment to another in order to reduce vulnerability, reduce damages and losses.

3.7 Warning

Awareness and warning to the forces based on the proximity of operation of enemy attack are called warning. This warning for preparing may be announced a few hours, a few days, or a longer period than the start of the conflict. Devices and means for announcing news include radar, visual observation, siren, speaker, messages, and warnings.

3.8 Relief and Crisis Management

Relief Activities usually include all operations and actions that must be taken place before and after the crisis. These operations and actions are generally done at protecting the lives of the people and the facilities

and assets. Crisis management activities also refer to all activities and actions that are done to overcome the crisis and normalize the situation before and after the crisis. What is involved in passive defense is the measures that help to overcome the crisis and control it and relief before and after the crisis. These measures could include the expansion of passages of surrounding buildings, the construction of hospital and fire station near the facility, and ... (Bolhassani, 2008: 30).

4. THE IMPORTANCE OF PASSIVE DEFENSE PLANNING FOR CITIES

Since urbanization began, planning and designing and construction of cities have always been with defense. Passive defense measures in architecture and urban planning can be useful in reducing the risk of kinds of natural hazards, in addition to reduce the man-made threats (war and air bombardment, etc.), combining the design of passive defense, in response to natural hazards such as earthquake in addition to man-made threats in time of peace and war causes "sustainability" of defense plan.

There are different approaches to the planning of passive defense in cities that differ according to the conditions, the priorities of type and environment, and ... Meanwhile, economic measures, social policies, political strategies, and even diplomatic imperatives, even intensive, require their own methods. Since designing, maintaining, planning, organizing, and field developing in the new passive defense is different from the political and geographical point of view, depending on the situation and the confrontation with the enemy, the variety of situations and solutions, flexibility and dynamism follows the concept of command and control of passive defense operations. Passive defense measures is a precautionary and preventive process that must necessarily begin at peacetime and continue until the end of the crisis and threat, so the management approach and how to deal with it is a preventive approach rather than firefighting and passive management. (Hosseini Amini, 2010: 131)).

5. PRINCIPLES OF PASSIVE DEFENSE

Camouflage, concealment, deception, the choice of safe areas in the country's geography, determining the optimal scale of population deployment and activity in space, managing defensive crisis defenses in scenes, dispersing in the distribution of functions, in proportion to threats and geography, choosing the optimal scale of dispersion and economic justification

of the project , locating and deploying operations, rehabilitating and sustaining fortifications, and securing critical structures, creating dual and sometimes multipurpose structures ... includes a set of these principles (Hosseinzadeh Delir et al., 2012: 5).

The building's defense architecture is being prepared to gain more readiness against military attacks and other natural disasters. The passive defense considerations in the housing sector are crystallized in three parts: architecture, structural strength, and building structures. In the architecture section, attention to principles such as location and optimal layout of the building, proper dispersion of the building, observance of the principles of concealment, camouflage and deception, the degree of high refinement of the building of the interior architecture of building is important (Kamran et al., 2012: 2012: 81).

6. USE OF URBAN LANDS IN PASSIVE DEFENSE

Optimum planning of urban land use has an important role in reducing vulnerability to various disasters, especially military threats. Considering surroundings and the absence of risky uses in different areas of the city will reduce the effects of the above threats. Industrial uses or strategic installations after the industrialization process of cities has allocated consciously or unknowingly a large percentage of urban use, which, in the case of accidents has created consequences such as explosions, fires and other related incidents with the surrounding users and increase the extent of urban destruction and human casualties; Particularly, this user is also adjacent to rescue centers, hospitals, schools, universities, and Therefore, in most cities, the precision is applied to avoid the least threats in locating these users (Iranian newspaper, 2008: 18).

7. CASE STUDY

7.1 Introducing the Area

The area of the western division is located in district 8 located in the east of Tehran. District 8 is adjacent from the north and east with district 4, from the south with district 13 and from the west with district 7. District 8 of Tehran has three major metropolitan areas; the study area is located in District 3. Area 3 consists of 6 districts with an area of 462 hectares included 31 percent of the district 8.

Western division district is located at the end of southwest of area 3 and from the north is limited to Shahid Heydari Street. 14 meters' division, from east to Shahid Ayatollah Madani Avenue (Nezam Abad), from south to northern Sabalan Street and from west to the intersection of west Janbazan and Sayyad Shirazi Highway and Sabalan Square

This district from the north is adjacent to eastern division district, from the east with districts of Tashilat and Vahdatiye in District 8. More than half of the area of the western division area is located in the area of worn out, and the remainder, except for a few blocks at the periphery of the district is considered as unstable context. About 78% of the parts in the worn-out context of western division district are below 100 square meters. The average area of residential parts in the area of worn out context is 80.94 square meters. 60% of all parts are destroyed and worn out in the western division district. The district also lacks a valuable building culturally and historically. Of the 3810 plaques in the Western Division District, 1938 plaques are located next to a 6-meter passage about 50 % (western division district development document: 2015: 25). In Figure 1, we see the area of the western division district and the district 8 of the municipality of Tehran.



Figure 1. Research Area



Figure 2. Map (1) - Context of the Western Division District

Map (1) - The position of worn out and unstable context in the western division district

Map 1 shows the context of the western division district. The context of this district is depicted in two sections of unsteady context and worn out context on the map.



Figure 3. Map (2) - Use of existing land in the western division district

Map 2 shows the type of users available in the district, as well as in Table 1, we observe the available and proposed services of this district.

Table (1) - Calculation of the shortage or surplus of the required services level and the horizon population of western division district

User	The existing population		The horizon population of plan		Lack of Area (-) Surplus Area (+)
	The existing level (Square meters)	Available per capita	Proposed per capita	Proposed level (Square meters)	
	24351 people		37995 people		
Educational	1.516	0.06	0.33	12.538	-11.022
Health	3.055	0.13	0.15	5.699	-2.644
Cultural	226	0.01	0.16	6.079	-5.853
Religious	4.168	0.17	0.11	4.179	-11
Sports	1.959	0.08	0.22	8.359	-6.400
Tourism	0	0	0.16	6.079	-6.079
Municipal facilities and equipment	6.175	0.25	0.27	10.259	-4.084
green space	7.466	0.31	1	37.995	-30.529
Total	17.099	0.70	1.4	53.193	-36.094

Source: (development document of district of western division: 2015, 47)

The district of western division with an area of 57.5 hectares has a population of 26032 people in 8009 households. Population density in this district is 426 people per hectare, which is more than the population density in the district (285 people per hectare). (Studies of western division district: 2015; 9).

7.2 Research Findings

Features and limits of the western division district

Most problems that exist in the western division district are categorized into the following headings in terms of counseling:

- o Insufficient open spaces
- o Lack of public users
- o Lack of enough exploit from the capacity of public parks and spaces
- o Insufficient participation of the people
- o The existence of occurring insecurity
- o Lack of proper lighting
- o Low latitude and inadequate passageways
- o Lack of sense of identity and belonging

- o Existence of abandoned spaces
- o Lack of public observation
- o Lack of proper quality of passages
- o The lack of urban furniture, especially on sidewalks

Investigation of Criteria and Indicators of Passive Defense in Tehran's Western Division District

Considering the importance of passive defense in urbanization and its effects in reducing damages, facilities, equipment and manpower, the city-related components such as structure, context, form, urban land user is investigated and the impact of each on increasing and reducing possible damages is studied.

Investigating Threatening Factors of Defensive Safety in The Area

In discussing the threatening factors of defensive safety, the risks that the cause of their occurrence is outside the system and the system of a region or city and target the defensive security of the system are notable. If the entire system as a set has the ability to cope with imposed conditions, either as passive or active in today's asymmetrical wars to counter offensive aggression and reduce the damage caused by air strikes.

Considering the level of information available in this area, the instability of the major part of district context is a serious threat during the crisis in the issue of defensive security of western division district and its threatening factors. Also, low latitude passageways with many intersections are another threat in the time of crisis.

7.3 The threatened and Effective Main Centers in Expanding the Area of Damage

In this issue, the physical elements of the index within the area that are identified according to the physical and physical characteristics by enemy's measurements and according to the inner nature of each are potentially hazardous are raised and constitute the main centers of the western division district. The existence of worn-out buildings with long lifespans along with low latitude passageways is among the risky centers during the earthquake. Fortunately, the incompatible users with deployable users are not seen in the area except limited cases. It can also be said that the existing urban facilities in the district are well located, but the need to establish a gap with residential users is felt to create security at the time of the crisis.

7.4 Investigating Vulnerable Elements and Factors in the Area

7.4.1 Urban Land User

Optimal planning of urban land user has an important role in reducing vulnerability against various disasters, especially military threats. Considering adjacent and lack of risk users in different urban areas reduce the effects of these threats. Industrial user or strategic installations after the industrialization process of cities has allocated a large percentage of urban users consciously or unconsciously that in the case of occurrence of accidents and incidents has created consequences such as explosions, fires and other related incidents with adjacent users and causing an increase in the extent of urban destruction and human casualties, especially as it is adjacent to relief centers, hospitals, schools, universities, and so on. The adjacent of incompatible uses in the western division district has been considered with sensitive centers, but the presence of workshop and industrial user in the district can act as a threat at the time of the crisis, which can help to reduce the vulnerability of the area by transferring this user.

7.4.2 Communication Network

Communication paths are one of the most important elements in increasing or decreasing the vulnerability of an area. Definitely, a large number of access paths, the selection of suitable locations, and desired and robust equipment will have a significant effect on reducing the vulnerability. Assessing these factors on the scale of the western division district is very difficult given the available information, and can only be distinguished the degree of vulnerability according to the hierarchy of access networks. Access network hierarchy is within the appropriate area, but due to the worn out of the context of the western division district of the passageway is characterized by high permeability and low width, and also the existence of impassable passages is also a serious threat during the crisis. The movement of people and vehicles in the area is determined by the design of access and parking lots. Access routes must be designed to maximize performance, in addition to minimizing interference between pedestrian and vehicle movements.

7.4.3 Context

Context of each city or the same shape, size, and composition of the smallest parts of the city will also be effective in protecting the city against military

invasion and other urban disasters. The response of any urban context in the event of urban various incidents in the abilities of escape and refugee of residents has direct involvement in relief facilities, in the cleaning and even temporary accommodation. The scope of impact of these features has been developed not only in building design, but also in urban design and crisis management, and has great importance. Residential context is the most important factor in the formation of urban context. The city's context affects the extent and how using of users from city, the regularity and irregularity of the shape, the size and composition of the smallest components of the city. Based on this, the regular urban context is more resistant to irregular context (organic), and in addition, the security degree of discrete context against the risk of natural and military disasters is expected higher than the security degree of continuous context. As shown in the map of the area, western division district has a regular and chess context. The regular combination of uniform pieces leads to a regular context, which, due to the effect of uniform movement of forces in adjacent buildings leads to the reduction of damage. Apart from the pattern of combining parts in an urban context, pattern of adjacent of structures and open spaces of adjacent parts is another indicator of vulnerability. About 78% of the parts in the worn-out context of western division district are below 100 square meters.

7.4.5 Structure

The spatial distribution of elements, combining the elements and main functions of the city, which form the city's structure, play an important role in the city's vulnerability to various disasters. The city's physical divisions, such as alley, district, area single center or multicenter, and ... are also other aspects of the city's structure that each due to incidents has their own talent. For example, in the single central structure of city and concentration of economic and human facilities in a part of the city, in comparison with the multicenter cities, the possibility of vulnerability increases. Considering this factor in the design of the city, it should be possible to see the urban elements as scattered. Western division district has a multicenter structure, which, along with many problems in the district, is considered as a strength point. Proper design of the enclosures based on the density of buildings and the number of inhabitants, the establishment of safety distances and spaces between the buildings for the construction of shelters, layout of fit and strong urban furniture, ... in order to avoid the effects of the explosion wave and falling debris is the most basic

predictors in housing planning based on the principles of passive urban defenses. The uniform density of buildings and the balanced distribution of the number of residential units, based on the extent and scope of development of places add to the safety degree of cities. As mentioned, the western division district has a uniform density, but the destructiveness of many of the houses in district has increased its vulnerability against crisis. Also, the presence of compressed context in the area also increases the vulnerability.

In sum, the major issues in urban planning with the passive defense approach can be classified according to the following criteria and indicators:

Table 2 - Passive Defense Indicators and Indicators

Criteria	Indicators	Vulnerability		
		Low	Medium	High
Combining urban context	Size of block	S<10000	S<20000<10000	S>20000
	Number of classes	Less than two classes	Between 2 to 4 classes	More than 4 classes
	Occupancy rate	0<A<30	30<A<60	60<A<100
Urban access networks	Width of passage	More than 12 m	12-6 m	Less than 6 m
Ability to access relief centers	Fire stations	Less than 750 m	750-1500 m	More than 1500 m
	hospitals	Less than 250 m	250-500m	More than 500 m
Secure spaces	Metro stations	Less than 125 m	250-1250m	More than 250 m
hazardous centers	Gas transmission network	More than 20 m	10-20m	Less than 10m
	Urban power substations	More than 20 m	10-20m	Less than 10m
	Pumps of gasoline	More than 150 m	150-75m	Less than 75m
The population at risk	Demographic density	A<100	100<A<200	A>200

7.5 Prospect

The prospect of the western division district in relation to the subject can be defined as follows:

Safe and resistant district with the lowest vulnerability against the possible threats of the enemy”

7.6 Analysis of district status based on passive defense indicators

Considering the recognition of the western division district and the analysis in the district context based on passive defense indicators, the facilities and limitations of the district can also the purposes and strategies required for reducing the level of vulnerability and increasing the level of resistance against potential threats during the crisis are provided in Table 3.

8. CONCLUSION

The enormous economic, social and cultural changes of the country and modern technology have put enormous reciprocal effects on the structures of the major cities. The wide dimensions of damages caused by natural disasters and human-made accidents in the world's cities are led to wide research in the immunization of cities. Therefore, the protection of the lives and property of the people and the treasures of knowledge and skills in the cities, the industrial and productive equipment, and urban facilities and services against the effects of natural and man-made disasters and the attacks and invasions of the enemy should be an integral part of urban development projects.

Urban worn out context are considered due to the type and extent of worn out and the possibility of high degradability in urban planning and management. Urban worn out context as vulnerable areas should be considered in order to reduce the vulnerability of such context by identifying such context and separating and prioritizing the reinstatement of worn out parts that are from essential steps in passive defense. Therefore, any major planning and action to reduce the dangers affecting these areas requires the management, coordination, and good interaction of all devices and departments. In this regard, the implementation of educational programs has a significant role in increasing the ability and readiness of all citizens and urban managers and ... at all levels. Therefore, planning for training, studying, researching and collecting information, organizing and designing and providing resources and facilities are essential tools for preparing to reduce risks.

In this regard, the following points are considered as the most important factors in interventions of urban worn out context in order to consider passive defense:

- o In relation to the physical structure of cities and urban districts, in the urban design stages in urban worn out context, it should be considered issues such as the spatial distribution of urban elements, the combination of elements and main functions of the city

in the worn out context to be done the least amount of degradation.

- o Strengthening of buildings in the context of worn-out context based on the latest guidelines and national regulations of buildings.

- o Protecting urban infrastructure, which is considered the basis of the city's physical structure.

- o Access to districts and traffic axes should be considered in such a way that the possibility of services to urban areas and settlements in the event of accidents to be provided.

- o Proper distribution of users and the transfer of vulnerable users from the desired area.

- o Firefighting centers and fire extinguishing equipment and emergency station sites should be located in a city structure in order to be used in worn out context in the event of an accident.

Table 3. District status analysis based on passive defense dimensions

Dimensions	SWOT			
	Strength	Weakness	Opportunity	Threat
Use of urban lands		Lack of service users and uneven distribution Lack of public spaces Lack of open spaces The existence of incompatible uses in the western part of the district		
Accessible network	Appropriate access to the passageways The presence of specific central axis in the district Permeability along the eastern west of the district	Impassability of passageways Lack of hierarchy in access	Adjacent with outsider axes Ability to communicate with centers through outsourced access	Low width of passages and the impossibility of relief in critical situations
Structure and context of residential districts	The formation of activity axes to provide services and strengthen the district skeletons	Elegy and context compression Low quality of building Lack of cohesion and rupture in the context Physical Instability of Residential Buildings in district context		Context compression and lack of large green areas increase risk and vulnerability Existence of low-quality buildings and high vulnerability
Physical Spatial	Regular context of district	The overcoming of mass on space and the lack of open spaces	Possibility to use green	High risk exposure in times of crisis
		High residential density of in the context of long blocks along the east western direction Elegy of parts Undesirable context impermeability High relative density of household and population in residential unit and low building density and problems due to it	and open spaces around the crisis	due to worn out of context
Installations		Parking shortage Lack of public transport equipment equipped stations Lack of fire-fighting units and rescue aid		

Macro-goal	Micro-goals	Strategies
Increasing safety and resistance by reducing vulnerability to potential threats	Improvement of quantitative and qualitative position of land user in the district	Identification of susceptible lands for the establishment and expansion of service centers Changing warehouse and workshop usage to urban services Create green and open spaces Removing and eliminating maladaptive users and identifying suitable lands outside of the scope for the establishment of incompatible uses
	Improving equipment and facilities associated	Identification of areas susceptible to temporary

	with passive defense	accommodation Making public shelters for all people considering the connection and access to the subway lines Rehabilitation and equipping of residential buildings Non-use of glass views and large windows adjacent to the premises without the necessary provisions. Identification of suitable lands in the district context for the construction of shelter and population evacuation in times of crisis Create the right urban furniture
	Improve the safety indexes in the context	Underlining the realization of immunization and rehabilitation programs in the context considering high vulnerability Creating openings at different levels Establishing safety intervals and spaces between buildings The uniform density of buildings and the balanced distribution of the number of residential units based on the extent and scope of peripheral development
	Increasing context resistance	Reduce compression and compression of the context Increasing the quality of the building Renovation and rehabilitation of housing through modeling and

REFERENCES

- Azizi, Mohammad Mehdi, Bornafar, Mehdi (2012), Optimal Urban Planning Process in Airborne Attacks from the Perspective of Passive Defense (Case Study: Area 1 District 11 of Tehran), Quarterly Journal of Urban Studies, No. 1, pp. 22-22.
- Behtash, Reza, M and Aghababaei, M (2011). Taghi, Concepts of passive defense in urban management focusing on Tehran city, Center of studies of Tehran, Danesh Shahr, No 37.
- Draft of issue 21 of the National Building Regulations, 2009
- Eskandari, H (2011). Passive Defense Knowledge-General Level 2 (Applicant and Operator), Tehran
- Fazelnya, G, Hakim D, Yaser and Balyani, Yadolah, (2012), A Comprehensive Guide of Applied Models for GIS in Urban Planning, Azad Peima, University of Zabul, First Edition.
- Hosseini Amini, H, Asadi, S, Bornafar, Mehdi, Rabbani, Taha (2011); Analyzing the zoning of urban users in Tehran's 11th district in order to provide solutions to passive defense; Quarterly Journal of Urban Management Studies, Third Year, Seventh, Autumn. Kamran, Hassan; Amini; Davood; Hosseini Amini; Hasan; Application of Passive Defense In Urban Housing Planning; Urban and Regional Studies; Fourth Edition, Vol. 15, Winter 2012; 88-75.
- Habibi, K (2007). Pourahmad, Ahmad. Meshkini, Abolfazl, Improvement and Modernization of Urban Context, Entekhab Publishing, Tehran.
- Habibi, M, Maghsoudi, Maliheh (2012). Urban Restoration, Tehran University Press, Tehran.
- Hosseinzadeh, D, Karim; Maleki, K; Shafaati; Arezu; Heydarifar; Raoff, M (2012). Passive Defense and Sustainable Urban Development with Emphasis on Threatening Users of Tabriz from the Perspective of War; Geography and Environmental Sustainability, No. 5, Winter , Pp. 24-1.
- Kamran, H, Amini, H (2012). The use of passive defense in urban and regional planning. Case study: Shahriar; Journal of Geographical Space; Year 12; No. 38; Summer; Pages 233-215.
- Kool, A (2008). Reconstruction and Recovery in Urban worn out context, First Conference on Improvement and Modernization of Urban worn out context, Mashhad.
- Movahedinia, J (2007). Principles and foundations of passive defense, Tehran, Malek Ashtar University of Technology.
- Rubin, C (2007), Civill defense and cultural property, London, Francis and tailor group.
- Raman R (1999). Introduction to camouflage and Deception, Printed and published by Director, Desidoc, Dehli.