

# Commercializing Cities, Challenges, and Impacts Duhok City

Hanan Muhi Shingaly  
Assist. Lecturer: Duhok University  
hananshngaly@yahoo.com

Dr. Maha J. Malaika  
Lecturer : Duhok University  
maha.jameel@uod.ac

## Abstract—

The commercialization of cities and commercial land use planning faces different problems, however; the condition varies from one city to another. In Duhok city-Kurdistan Iraq, there is a rapid pace of urbanization, and increasing immigration from rural to urban areas as well as from other cities to Duhok due to various political, economic, and social issues of the population. This situation resulted in an increased and growing need for commercial projects in urban areas of Duhok city. The lack of clear planning scheme led to random distribution for commercial uses and commercial corridors in the city (changing the majority of residential land uses of the city Master Plan to Commercial). Negative impacts were created affecting the urban areas and fabric of the city. This paper targets some of these random uncontrolled changes by studying and analyzing their impacts specially on commercial uses as one important land use, based on content analysis ,maps, plans, and field survey (questionnaire and in depth interviews) to investigate the research problem, reaching findings and recommendations for a more controlled planning scheme.

**Keywords-** CBD: Central Business District, FAR: Floor Area Ratio, ROW: Right of Way, SBL: Street Building Line

## 1. INTRODUCTION

Duhok governorate forms the western governorate in Iraqi Kurdistan Region. It has a strategic location since it is considered to be a point of joint among the three parts of Kurdistan (Syria-Turkey- Iraq) (Othman, 2008). Duhok city expanded enormously in the last 35 years. This expansion proceeded largely in an east-west fashion (Mousa, 2011). The greatest developments took place between 1973, and 1984 as well as between 1986, and 1994 then between 2000, and 2012, which present the greatest change in Duhok population density and area (Municipality of Duhok, 2012). The negative impacts on the urban areas of the city was huge. The commercial land use in Duhok expanded as linear shapes (commercial streets) such as, Baroshke Street, Shaheedan Street, Malta, KRO Street, reported sequentially from the oldest to the newest, in addition to many other secondary commercial streets. Most of them lack planning standards and regulations which led to many physical, accessibility, and services problems in these streets. Shaheedan Street is selected as a case study area because of its impact on Duhok CBD, and affecting randomly the density at the CBD (Duhok Master Plan, 2010).

## 2. THE RESEARCH PROBLEM AND SIGNIFICANCE

According to interview with the head of the building permits department in the municipality of Duhok(interview, 2012).

A. “Before 2010 there was no Master Plan in Duhok city. Since 1873 the city witnessed accumulated organic growth. The First Master Plan for Duhok city has been put in 2010 by Ingenieurburo Company”

B. “After the illegal construct of some commercial buildings in many streets, a committee was performed from responsible parties to study and take the decision of changing land use from residential to commercial in the Master Plan”.

C. “The lack of Master Plan for Duhok city and the random increase appearance of commercial streets randomly assigned the city municipality to set controls for the commercial building according to the street right of way (ROW) which the building lies on and the present condition of the area”.

## 3. THE RESEARCH HYPOTHESIS AND METHODS

The research hypothesis is “lack of planning standards in implementing commercial streets in Duhok city led to failure in reaching efficient urban requirements for commercial uses.” The research investigation will examine the research hypothesis variables on the case study area (Shaheedan Street) which are:

A. *Dependent variable: Efficiency of commercial street land use. It will be examined by studying the following indicators:*

A.1*The physical (architectural) indicator:*

- Problems of changing the land use from residential to commercial
- Problems of the streetscape
- Problems of street furniture

A.2.*The accessibility and services indicators:*

- Accessibility of the pedestrians and cars
- Parking
- Other services such as electric lines and the other elements which the research will tackle in the field of their effect on the streetscape only.

B. Independent variable: Planning standards. It will be examined by studying the following indicators:

- Absence of commercial building permits on Shaheedan Street.
- Absence of regulations related to commercial land use standards in Duhok city

4. THE THEORETICAL PART:

4.1 The Concept of Commercial Streets: definition, Advantage & Disadvantages

A commercial street occupies the main area in the city. It is a concentration of retail stores, shopping centers, restaurants, hotels and motels, offices, and other commercial activities which serve a common trade area and surround and/or lie along a single street. It has strong attracting centers for the population, making it one of the most traffic congestion streets in the city (Kadum, 2010). shows the advantages and disadvantages of the commercial streets in the city. Source: The researcher according to the (Econsult Corporation, 2009), (Kamoona, 1988), and (Adnan, 2007)

4.2 The Requirement for Changing the Street Use and Urban Structure Elements for the Commercial Streetscape

In case of changing any main street use, the followings should be taken into consideration (Jackson, 1963):

1. Collecting data and information about the transport system, capacity, and streets length.
2. Studying number of lanes, their width, and number of intersections.
3. Surveying crossing points to measure suitability for the pedestrians.
4. Surveying accidents points and minimizing them.
5. Testing the possibility of establishing car parking (parking types), including parking on the ground area, on street, and multistory car parking to reduce the negative impact on adjacent areas or on the urban streetscape (city of San Jose, 1990).

Other planning procedures (Kamoona, 1986):

1. Re-examining the city Master Plan and study the transportation network and elimination of many streets that cause traffic confusion.
2. Expanding parts of the street, and establishing local areas for isolating the main street from local traffic and pedestrian movement.
3. Establishing tunnels for pedestrians at the intersection of movement within the main streets,
4. The intersections where the traffic is intensive should have facilities to cross at different levels.

Another important consideration is road safety and suitable streetscape (Adnan, 2007). The streetscape term refers to the different components that make up the street, both in the Right of Way, and on private plots frontages (Urban Cod, 2003). There are five streetscape elements, built forms (FAR and plot coverage), buildings rise (skyline), building front width (building frontage), building setback and facade details and (materials used (Portella, 2007

<i>Table (1)</i>			
	<i>The terms</i>	<i>Advantages</i>	<i>Disadvantages</i>
1	<b>Architectural</b>	<i>Diversity in the use and buildings forms generates the greatest of pleasure and sensual visual condition if it had not reached to urban chaos degree.</i>	<i>Diversity in the use and loss of unity and harmony in form and style of building which affect the streetscape</i>
2	<b>Economic</b>	<i>Provide jobs for the residents of the region and increasing the efficiency of investment.</i>	<i>Increasing land value and rent in the area, increasing land value . Increasing the load on the infrastructure</i>
3	<b>Social</b>	<i>"Enhance the overall attractiveness of the surrounding area, Can help create a sense of community. Provide a diversity of opportunities in a region"( Econsult Corporation, 2009)</i>	<i>Residential buildings close to these streets suffer from loss of privacy due to dominance of commercial buildings. These residential buildings live in non-calm and unsafe conditions due to heavy traffic.</i>
4	<b>Traffic</b>	<i>Increasing the movement at night and day and rising street importance in the city.</i>	<i>Increases in retail activity can be accompanied by traffic or other congestion problems. Lack of parking in these streets led to nuisance to the inhabitants of these areas, and congested streets</i>
5	<b>Environment al</b>	<i>Landscaping and commercial street furniture in the street giving an aesthetic addition to the visual appearance which gives convenience and enjoyment for the costumers.</i>	<i>The traffic or other congestion problems will increase levels of noise, and air pollution. Negative environmental impacts due to large amount of retail activities waste in those streets,</i>

## 5. THE PRACTICAL PART

### 5.1 Shaheedan Area (Location and History)

Shaheedan Street is (as a case study area) located in the north part of Duhok city. It lies among three residential sectors (Shaheedan, Shorash, and Grebase sector), which are different in population density (see fig 3-6). At the beginning, case study area was a rural area after that changed to urban areas. The first plan was put in the area by the responsible authorities in 1977 after the area was a village of the city and has many slums which have been introduced within the Master plan in 1987. Many changes have been on the plot area design in 2003. Most recent changes got after putting the Master Plan proposal for the city, which considered Grebase residential sector a part of the CBD, but till now this proposal is not implemented. It has a strategic area due to its significance in traffic movement between east and west parts of the city, representing the nearest commercial street to CBD (about 500-600 meters from the CBD), and it is one of the most attractive commercial streets in the city. The area is approx. 740550 square meters (see figure 1) below:



Fig.1: Case study area in Duhok city. Source: The researcher according to municipality of Duhok

### 5.2. Measurements:

#### 5.2.1. Shaheedan Street Land Use

The number of plots on this street is 84 plots with different areas. The average commercial uses constitute 40.37 % of the total urban area. Other plots form 32.10 % residential land use, 20.20 % mix (commercial and residential) land use, 1.19% mosque, 4.76 % educational land use, 2.28% vacant land (see figure 2).

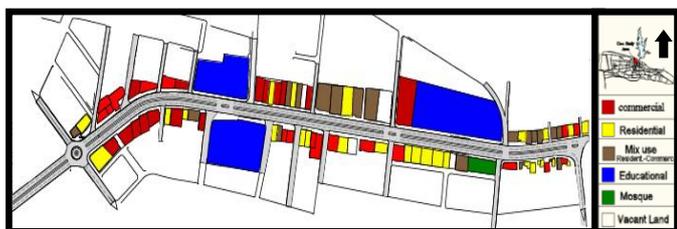


Fig.2: The land use plan. Source: The researcher according to the field survey

According to the street planning standards, Shaheedan Street is Local Arterial Street. It is length about 870 meters. Figure (3) shows the street section dimensions in details for the existing situation. The researcher found that difference of the

buildings setbacks off a street edge which are ranges between 1.5m and 6m. Difference of the sidewalks topography and non-pavement or absence of a clear trimness in the pavements coverage. These terms directly affect the accessibility indicators for both vehicle and pedestrians.

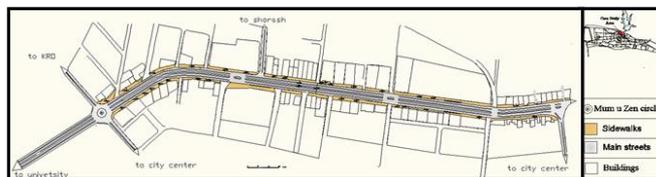


Fig.3: The Street section plan. Source: The researcher according to the field survey

#### 5.2.2. Shaheedan Street Elevations

As presented in the elevations, there is difference between commercial and residential buildings, then among the same building types in terms of floor rise, frontage, and façade details. Non-unification of the commercial buildings heights in the area, in addition to absence of harmony between them was a result of several stages of various laws that organized the land uses in this area and few regulations for building permits (see figure 4) below.

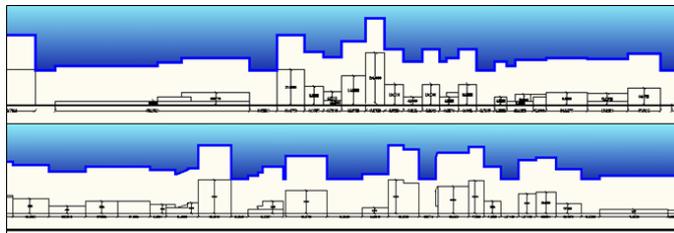


Fig.4: The Street skyline (Buildings heights) for both sides. Source: The researcher according to the field survey

The buildings heights range from one floor to seven that is (4-24 m height). Non-unification of the heights caused random sky line for the streetscape. Some buildings are too high in relation to the other buildings on both street sides. 4.2.3. Shaheedan Street Building Front Width As seen in the figure (5) the facades of the buildings at the commercial street differ in their width and depth. The facades' width ranges between (7-30 m), also the depth ranges between (7-30m).

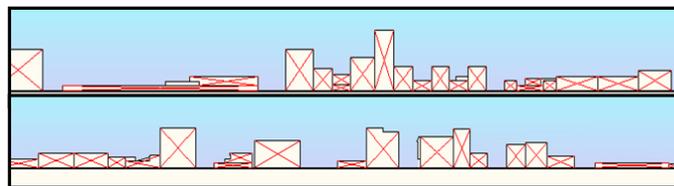


Fig.5: The Street building front width for both sides. Source: The researcher according to the field survey

#### 5.2.4. Built density and form

During the repeated field visits to Shaheedan Street by the research she found that architectural problems are concentrated in a certain part of the street. Due to the difficulty of measuring Floor Area Ratio (FAR) and plot coverage for the street as a whole, the researcher selected that

part as a sample to study the forms and building density. See figure (6) panorama of the part.



Fig. 6: Panorama for the case study section (x: y FAR, whereas x% is Plot coverage). Source: The researcher according to the field survey

FAR: The Floor Area Ratio of the selected part ranges between 6:1 as a maximum limit for buildings and 0.3:1 as a minimum limit which represents one floor residential unit.

Plot Coverage Ratio: The ratio of coverage for buildings in the selected part ranges between %96 as a maximum and 35% as a minimum limit which represents a residential unit

Built Form: With regard to the built form for all the commercial buildings, they are all lined and there is no setback off the sides or the rear facade only a front setback off a street edge. For the residential buildings, there is a setback of the front and rear facades in most residential units to provide the natural lighting and ventilation including gardens and trees.

#### 5.2.5. Facade Details and Building Material Used

Lack of harmonious architectural patterns for the buildings facades, and absence of the finishing materials and color for the buildings facades, due to absence of building regulations related to the details of the facades in terms of patterns, finishing, and colors, led to chaos and non-cohesive streetscape. There is a traditional pattern and the modern architectural pattern within the same street. Also the scale of openings differs from one building to another and within the same building. This affects the streetscape and proportion as a whole, see figure (7 & 8).



Fig.7, 8: Facade details for both sides. Source: The researcher according to the field survey

Regarding to Façade Colors and Material Used, The used colors and materials differ in facades from one building to another, and the reason for this diversity is the use of various coverage materials for the facades such as coupon, cement, stone block, marble, and tile (see figure 8).

The researcher found the randomness in selecting the architectural patterns, building materials, and colors used in covering the facades in addition to the advertisement signs which were put randomly (the research will tackle them as part of street furniture). All these led to non-cohesion of the streetscape and loss of the architectural identity of the area.



Fig.8: Different color used. Source: Physical imaging

#### 5.2.6. Street Furniture

The street furniture is considered as a basic part of street design and one of the complementary design elements of open space that has role in the beautification of the urban streetscape, in addition to its importance to visitors as well as residents. The researcher noticed a 1.Shortage in street furniture such as gathering places and sitting areas as necessary elements for open spaces.2.There would be no sitting places or rest in Shaheedan Street during shopping in the area.3. Absence of harmony and coordination in the commercial buildings signs in terms of measurement, colors and harmony.4. Carelessness and ignorance of public and private transport facilities stop areas. Even if they were found in some places, they were available at random or designed by an unstudied way in terms of shape and size of the station to a number of seats or the capacity.5. Trash containers distributed in the street long at random and unfit to the urban appearance for street in terms of color and shape in a way to the beauty of the area in addition to misuse.

#### 5.2.7. Accessibility and Services

Shaheedan Street, suffers many accessibility problems. All these problems are directly affecting the normal use for the sidewalks and pedestrian accessibility and indirectly affecting the accessibility for vehicles. Also severe congestion in Shaheedan Street in both sides was found by using statistical methods and field survey. Traffic volumes have been calculated by using extrapolation growth equation. By using these equation, then (Volume/Capacity ratio), the traffic volume for 2013 result, is equivalent to 1.59 2 for east west direction, whereas for west east direction is equivalent to 1.33. When comparing these results with the standards, means severe congestion in Shaheedan Street in both sides (see appendix no.1).

Regarding car parking in Shaheedan Street, there are no areas allocated for parking in the studied area. The field survey showed that in many places owners and customers use the sidewalk or the street in front of the building as car parking, which is one of the main causes of obstructing pedestrians and vehicles accessibility on this street.

### 5.3. The Field Survey (Questionnaire) of a Sample in the Studied Area

The questionnaire was carried out and the forms were distributed in full totaling (251), in three types, distributed as follows: (a) (100) forms for the residents in the studied area in the sectors: Shorash, Shaheedan, and Grebase which represent the three sectors close to the target street. (b) (100) forms for the visitors of Shaheedan Street due to the importance of people impressions about the existing situation. (c) (51) forms for the commercial use that is the owners of the commercial shops on Shaheedan Street. (See appendix no.2, 3 and 4)

This section of the study presents the results of the quantitative analysis of the questionnaire. Responses of the residents in the area, the visitors, and the commercial buildings owners, were analyzed and the results show:

- A ratio of 60.99% of the questionnaire sample found the shops as attraction element on Shaheedan Street.
- About 53.59% of the respondents prefer the shopping from the commercial shops on the street (commercial streets).
- A ratio of 67.66 % of the respondents certified the idea of unifying the heights of the buildings on the main commercial streets in the city as a future approach.
- A ratio of 77% of the respondents certified the idea of unifying the building setback on the commercial streets as a future approach.
- A ratio of 64.24% of the respondents found badness of the existing situation of Shaheedan Street furniture.
- Almost an equal ratio (about 44.35% and 44.22% respectively) of the questionnaire sample parked their cars on the street and at the nearby branches.

The most important problems on Shaheedan Street within the questionnaire sample were: (1) Accessibility problems: A ratio of (48.65%) of questionnaire sample mentioned that accessibility for cars (traffic congestion) and accessibility for pedestrians (Problems of sidewalks such as the pavement, various levels, and width, in addition to problems of a dumping building materials on the sidewalks which led to mixing pedestrians movement with cars). (2) Services problems: A ratio of (32%) such as a shortage of car parking lots, poor maintenance of street and pavement, in addition to other maintenance services which require for commercial streets. (3) Physical (architectural) problems: Most of questionnaire sample at a ratio of (19.35%) mentioned that random mixture between residential and commercial uses, in addition to difference in the buildings facades, lack of harmony between them. The various buildings heights.

## 6. CONCLUSIONS

-Changing the residential land use to commercial led to physical, social, and accessibility problems in Duhok city such as random mixing between the commercial and residential functions, loss of the housing privacy, and traffic congestion.

-Lack of regulations for the commercial buildings permits, on the other hand, some buildings owners don't follow the planning standards when they build the buildings. That led to negative impacts of the commercial use on the surrounding urban area.

-No penalty on the violation of planning standards.

-Overlapping levels of service domain for the commercial streets with the CBD, including Shaheedan Commercial Street. The questionnaire clarified that, the largest number of visitors to Shaheedan Street (53.68%) are from the other areas of Duhok city, not from the surrounding residential sectors (Shorash, Saheedan, and Grebase).

-Shaheedan Street location is the centric area among the residential sectors (Shorash, Shaheedan, and Grebase); therefore, it has different services for the residential area, such as schools and mosque, as well as commercial services.

-The commercial use and mixed (residential - commercial) uses in Shaheedan Street represent largest ratio of the land uses (60.57%) of the total existing land uses on the main street. Changing of these land uses was not controlled.

-Violations in planning standards led to many problems in the urban streetscape and surrounding urban area.

-Large number of residents accepted the idea of developing Shaheedan Commercial Street to serve at the city level.

-Economic benefits are gained from changing the land use from residential to commercial in Shaheedan Street.

- Significant difference in the areas of shops on Shaheedan Street, and the presence of a large number of shops with an area more than (30 m<sup>2</sup>).

-The shops, along the main streets (commercial corridor), are the favorite for shopping.

-The poor condition of the existing situation of the commercial street's furniture (seating, commercial signs, sidewalks, etc.), in addition to the desire of the visitors and commercial buildings owners in Shaheedan Street call for the need of providing places for sitting and gathering.

-There is an overlap between the physical, accessibility, and services indicators, so if some of the physical and services problems are controlled, this leads to control largely accessibility problems.

-The problem of traffic congestion is the most important problem left behind by changing the land use in Shaheedan Street.

-The existing deficit in parking lots in Shaheedan Street estimated by (185) car parking as a minimum limit, and (480) car parking as a maximum limit.

## 7. RECOMMENDATIONS

The lack of planning standards and regulations increased the gap of reaching the development goals. It will be more effective to move towards spatial planning for the existing commercial land use system.

- Activating the role of building permits and develops new regulations that define the land uses change through responsible planning authorities in Duhok city. This will control the process of changing land use, and prevent the phenomenon of random changing.

- Setting penalty fines against violation of planning standards according to the type of violation reduces the phenomenon of violation of planning standards in the city of Duhok.

- With regard to Shaheedan Street, the following planning standards could be implemented as suggested by the researcher to control the future expansion process for the commercial use, especially for the future lands that will be changed to commercial use:

- a) Setback: 4.5 m, Set Front: 2.25 m as maximum limit,
- b) Plot coverage ratio: not exceeding 83%,
- c) FAR: not exceeding 4.4:1,
- d) Number of Floors: 5 floors,
- e) Floor height: 4-5 m ground floor and 2.70 -3 m other floors,
- f) Commercial buildings signs: 2.5 m rise from the ground and 50 cm signage height,
- g) Hotel, motels, and offices: the signs in top of the building, and
- h) Parking: 1-3 car parking for every 100 m<sup>2</sup> built area. Using the basement for this purpose.

- Providing open space for gathering and sitting, to be attractive point for the commercial use as well as it will fill the urgent need for open space.

- Issuing regulations for existing buildings that unregulated according to the building permits on Shaheedan Street.

- Development of commercial use in the Shaheedan Street such as constructing super markets, and multi-storey commercial centers. On the other hand, encourage residents on the main street to change the current residential use to commercial to reduce the problem of random mixing between the housing and commercial functions.

- Organize Shaheedan Street furniture (building signs, street trees, seating areas, etc.) with a unified format and arrange to reflect beauty of the region, and then give real character for the area.

-Building multi- storey car parking to accommodate the traffic congestion in the street as well as it will fill the urgent need for parking lots in the region.

- Specify custom stop areas for public and private transport facilities in addition to the allocation of places to pedestrian cross to reduce the problem of random mixing between the movement of pedestrians and cars.

## 8. REFERENCES:

1. Adnan, S. (2007). "Alamal Alshaabi Commercial street functional competency in Baghdad city" university of Baghdad. pp60, 42, 45
  2. City of San Jose (1990). "Commercial design guidelines", department of city planning. P34
  3. Cullen, G. (2000). "The concise townscape". Architectural Press, Oxford.
  4. Duhok Master Plan, 2010
  5. Dunn, M. (2006). "Educating for a sustainable community. Environmental topic: Visual Pollution".
  6. Econcult Corporation (2009). "Commercial corridors: A strategic investment framework for Philadelphia- appendices". Pp21, 22
  7. Jackson, N. (1963). "Survey for town and country planning, London. P131
  8. Kadum, Humam (2010). "Evaluation of the commercial location efficiency- in Alailam community", a master thesis submitted to the higher institute of urban and regional planning, the University of Baghdad. pp7, 27
  9. Kamoona, H. (1986). "The transportation and traffic problems in Iraqi cities". Baghdad. P128
  10. Kamoona, H. (1988). "Some notes about the planning problems in Baghdad city", Scientific research conference, Al-Mustansria, Baghdad.
  11. Mousa, Ibtisam (2011). "Visual pollution in the commercial streets in Duhok city", high diploma thesis submitted to the higher institute of urban planning, the University of Duhok. p20
  12. Othman, Halima (2008). "Urban planning strategies, towards sustainable land use management in Duhok city", a master thesis submitted to the higher institute of urban planning, the University of Duhok. Pp10-25
  13. Portella, Adriana (2007). "Evaluating commercial signs in historic streetscape". p50
  14. Urban code (2003). "Urban code for city of Versailles and city of Midway". pp3, 4
- In Depth Interview With:
15. Eng. Nahida Kofly .Head of the buildings permit department in the Municipality of Duhok, 2012.
  16. Eng. Alaa Abdulazeez. Head of the designs department in the Municipality of Duhok, 2012.

## 9. APPENDIXES

### A. Appendix no.1

Extrapolation growth equation according to (Robert, 1999):

$$V_f = V (1 + r)^n \quad (1-1)$$

V<sub>f</sub> = future traffic volume for the target year.

r = growth rate (for Duhok city is equivalent to 0.25 according to Mustafa, 2011).

n = forecasting planning period

V/C Ratio Description according to HCM, 2000

Critical V/C Ratio(X)	Capacity Condition
$X \leq 0.85$	Under capacity
$0.85 < X \leq 0.95$	Near capacity
$0.95 < X \leq 1.00$	At capacity
$X > 1$	Over capacity

1. Mustafa, W. (2011). "Spatial Analysis of Traffic Congestion in Duhok City Urban Roads Network Using GIS Technology", high diploma thesis submitted to the higher institute of urban planning, the University of Duhok.

2. Robert, J. (1999). Ramsey meets Lisbon in the neoclassical growth model. *Quarterly Journal of Economy*, 10, 1125-1152

B. Appendices no.2, 3, 4

استمارة استبانة ( للزوار )

هذا الاستبانة هو لاغراض البحث العلمي فقط والمعد من قبل طلبة ماجستير في المعهد العالي للتخطيط الحضري في جامعة دھوك .

- 1- العمر : [ ] سنة  
2- التحصيل العلمي : [ ]  
3- من سكة اي محطة في المدينة : [ ]

ت	الاسئلة	الاجابة
1	الغرض من التحول في الشارع؟	السوق الترفيه
2	عناصر الجذب في الشارع؟	السوق المطاعم والكافيه اخرى
3	الاسواق التجارية المفضلة لديك ؟	المولات محلات علي الشارع (تريباتيه) محلات متفرقة
العامل العمراني		
4	كيف تجد فكرة توحيد الارتفاع بأرتفاع واحد (نفس عدد الطوابق ) في الشوارع التجارية الرئيسية كنتوجه مستقبلي؟	جيدة متوسطة رديئة
5	كيف تجد فكرة توحيد ارتفاع الارتفاع (المسافة بين حافة الشارع وواجهة المبنى ) بنسق واحد عن الشوارع التجارية كنتوجه مستقبلي ؟	جيدة متوسطة رديئة
6	كيف ترى فكرة تحديد تغليف واجهات الابنية بمواد محددة كالخجر أو الالمنيوم أو كلاهما... الخ في الشوارع التجارية الرئيسية كنتوجه مستقبلي ؟	جيدة متوسطة رديئة
7	كيف تجد وضعية اثاث الشارع (التشجير /الاضاءة /برحات الاعلان .....الخ) ؟	جيدة لا باس رديئة

استمارة استبانة ( للسكان )

هذا الاستبانة هو لاغراض البحث العلمي فقط والمعد من قبل طلبة ماجستير في المعهد العالي للتخطيط الحضري في جامعة دھوك .

1- العمر [ ] سنة

2- التحصيل العلمي [ ]

ضع من فضلك علامة (صح) داخل المربع :

3- محل السكن : شورش [ ] شهبان [ ] كري باسي [ ]

اذا كان المسكن يقع بجانب المحلات التجارية الواقعة على الشارع فهل تجده مناسباً ؟ نعم [ ] لا [ ] لا اعرف [ ]

اذا كانت الاجابة ( لا ) يرجى ذكر الاسباب : .....

4- هل ترى تغير استعمال الارض من سكنية الى تجارية ادى الى نتائج ايجابية؟ نعم [ ] لا [ ] لا اعرف [ ]

5- ان كنت ترى النتائج ايجابية فهل هي ؟

اجتماعية [ ] ماهي ؟ .....

اقتصادية [ ] ماهي ؟ .....

بيئية [ ] ماهي ؟ .....

6- هل ترغب ان يتم تطوير الشارع ليكون شارع تجاري كقوة يقدم على مستوى المدينة ككل؟ نعم [ ] لا [ ] لا اعرف [ ]

7- هل تمتلك العائلة سيارة خاصة ؟ نعم [ ] لا [ ] لا اعرف [ ]

8- اذا كان الجواب (نعم) فكيف يتم إيقاف السيارة عند الذهاب الى شارع شهبان :

بمحاذاة الرصيف [ ] داخل الافرع [ ] موقف خاص للسيارات [ ]

9- مالذي ترغب بتواجده في الشارع ؟

امكان جلوس للراحة [ ] موقف سيارات [ ] اخرى تذكر [ ] .....

10- ما هي اهم المشاكل التي تواجهك كسكان في المنطقة؟

اجتماعية [ ] ماهي ؟ .....

اقتصادية [ ] ماهي ؟ .....

بيئية [ ] ماهي ؟ .....

مروية [ ] ماهي ؟ .....

عوامل الوصلية والخدمات

8	اذا كنت تمتلك سيارة خاصة اين قمت بركنتها ؟	في الشارع	موقف خاص	داخل الافرع
9	كيف تجد الحركة في الشارع لثناء التنقل مشياً؟	مريحة	لا باس	صعبة
10	كيف تجد الحركة في الشارع لثناء التنقل بالسيارة ؟	مريحة	لا باس	صعبة
11	مالذي ترغب بتواجده في الشارع ؟	موقف سيارات	امكان جلوس للراحة	اخرى
12	ماهي المشاكل التي تجدها في الشارع ؟ اذكرها تفصيلاً ..... ان امكن	عمرانية	حركة	خدمية

استمارة استبانة (للاستعمال التجاري)

هذا الاستبيان هو لأغراض البحث العلمي فقط والمعد من قبل طلبة ماجستير في المعهد العالي للتخطيط الحضري في جامعة دهوك .

- 1- العمر [ ] سنة  
 2- التحصيل العلمي : [ ]  
 3- من سكنة أي محلة في المدينة : [ ]  
 4- سنة تشييد المبنى : [ ]  
 5- عدد المحلات في المبنى : [ ] محل  
 6- كم تبلغ مساحة المحل : [ ] م<sup>2</sup>

ت	الاستبانة	الإجابة
1	موقع البناء ؟	ارض خالية مسكن ازيل بالكامل تحويل المسكن
2	عناصر الجذب في الشارع؟	السوق المطاعم والكافيه اخرى
3	الاسواق التجارية المفضلة لديك ؟	المولات محلات على الشارع محلات متفرقة (شربطية)
<b>العامل العمراني</b>		
4	كيف تجد توحيد الابنية بأرتفاع واحد (نفس عدد الطوابق ) في الشوارع التجارية الرئيسية كتوجه مستقبلي؟	جيدة متوسطة رديئة
5	كيف تجد فكرة توحيد ارتداد الابنية (المسافة بين حافة الشارع وواجهة المبنى) بنسق واحد عن الشوارع التجارية كتوجه مستقبلي ؟	جيدة متوسطة رديئة
6	كيف ترى فكرة تحديد تغليف واجهات الابنية بمواد محددة كالخجر أو الألمنيوم أو كلاهما... الخ في الشوارع التجارية الرئيسية كتوجه مستقبلي ؟	جيدة متوسطة رديئة
7	كيف تجد وضعية اثلث الشارع (التشجير /الاضاءة /إمخات/الاعلان .....الخ) ؟	جيدة لا بأس رديئة

عوامل الوصولية والخدمات		
8	إذا كنت تمتلك سيارة خاصة أين تركتها ؟	في الشارع موقف خاص داخل الأفرع
9	كيف تجد الحركة في الشارع أثناء التنقل مشياً؟	مرحة لا بأس صعبة
10	كيف تجد الحركة في الشارع أثناء التنقل بالسيارة ؟	مرحة لا بأس صعبة
11	مالذي ترغب بتواجده في الشارع ؟	مواقف سيارات اماكن جلوس للراحة اخرى
12	ماهي المشاكل التي تجدها في الشارع ؟ انكرها تفصيلا .....ان امكن	عمرانية حركة خدمية