

# **Social Assessment Report of Urumqi Urban Transportation Improvement Project II**

(Assessment version)

Urumqi Integrated City Transport Project Research Center

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# **Social Assessment Report of Urumqi Urban Transportation Improvement Project II**

## **1. INTRODUCTION**

### **1.1 Project Overview**

Urumqi, capital of Xinjiang Uyghur Autonomous Region, acting as the land transportation hub of China which connects central Asia and Europe, has become the important window of China to expand westward and to carry out economic and cultural exchanges with foreign countries. With the further implementation of the national Western Development Strategy, the economy of Urumqi has achieved a leap-forward development and its form has been continuously expanded, which makes the city's traffic plans and public infrastructure construction lag behind the pace of urban construction. Some problems as the inadequate public transportation capacity, traffic jams and air pollution, etc has become increasingly worse, which brings enormous pressure and challenge to the city's sustainable development.

The general plan of the city has underlined the space blueprint of controlling expansion from south while encouraging the development of the north, west and east part of the city. In this way the city will eventually form the layout of one axial with two cores consisting of two district and six clusters. At the end of 2012, the resident population is 3.35 million in Urumqi, and the population in the center city is expected to reach 3.4 million by the year of 2015. the level of urbanization will reach 93.5%, and the urban construction land will reach 520 square kilometers. By the end of 2012, the total number of motor vehicles has reached 545,000, about 243% increase over 2005. The total number of microbuses have reached 407,200, accounting for about 74.74% of the total amount of motor vehicle. As a result, the city traffic congestion has increased constantly and the congestion duration has prolonged continuously. According to the statistics, a per capita energy consumption and carbon emission per hundred kilometers of buses is 8.4% of cars, so it's extremely urgent to develop the public transportation and establish a set of green and efficient transportation system. Meanwhile, the task of city traffic energy-saving emission reduction is arduous. Urumqi has been listed as one of the first 15 "transit metropolis" pilot cities in 2012 by National Transportation Department. By implementing the integrated public transportation corridor and supported by the intelligent transportation system and the organization ability construction, we want to enhance the overall service level of Bus Rapid Transit Network and the urban traffic management, as well as promote the development of a green and low-carbon "transit city".

Areas involved in the implementation project is comparatively broad, including Urumqi Tianshan District, Saybagh District, High-tech District (new urban area), Economic Development District (Toutunhe District), Shuimogou District and Midong District. BRT4, line 6, and 6 branch lines, the sub-project of the rapidly urban bus system construction and system improvement, covered a range of Tianshan District, Saybagh District, High-tech District, economic development district, Shuimogou District, and Midong District; the sub-project of public transportation supporting infrastructure construction covered a range of High-tech District, economic development district, and Midong District; the sub-project of transportation integrated information management platform covered a range of the traffic police detachment of urban public security, the urban transportation bureau, the urban inspector committee, municipal committee, the urban road transportation bureau, the city railway bureau, the urban airport groups, and many other units. Above are the main survey areas in this editorial commentary task.

Urumqi city traffic improvement projects II includes 4 subprojects: the Integrated Corridor Management for Urban Transport, Urumqi Comprehensive Transport Information Platform, Public Transportation Infrastructure Construction and Construction Project Management. The total investment of the project is about ¥2.529 billion, including a loan of \$140 million from the World Bank(exchange rate: 1:6.1, equivalent to ¥854 million), accounting for 33.8% of the total investment. Among them, the total investment of the Integrated Corridor Management for Urban Transport is 1.438 billion Yuan, the total investment of the Urumqi Comprehensive Transport Information Platform is 401 million Yuan, and that of the Public Transportation Infrastructure Construction is 647 million Yuan and that of the Construction Project Management is 647 million Yuan and that of the Ability construction and project management is 44 million Yuan. The project is directed and organized by Urumqi urban comprehensive transportation project research center by whom it was implemented. The planned construction period of the project is from 2015 to 2019, a total of five years.

The followings are the brief introductions of the four components:

#### I . The Integrated Corridor of Urban Public Transport

The Integrated Corridor of Urban Public Transport is to build a Bus Rapid Transit(BRT) system, including the construction of BRT4 and BRT6 and BRT6 branch line with the total length of 44.1 miles. The BRT4 corridor, with the length of 20.1 miles, starts from the north machine station to the south bus station and covers the major traffic corridors, connecting the old urban area with the new city area in north. BRT6 corridor, with the length 11.4 miles, starts from the north Midong bus station to the south northern suburb station. It not only strengthens the connation between Midong area and urban area but also fills the blank of the transit network coverage area along Midong avenue. BRT6 branch line starts from east Midong avenue – the intersection of Kashi road to the west high-speed railway station, with a

total length of 12.6 miles. The line connects Midong and Ergong high-speed railway station, filling the blank of the vision of rail transit network coverage in northern area.

The project construction mainly covers the Tianshan district, the Saybagh district, the High-technology industry development zone (the new urban area), the economic and technological development zone (Toutunhe District) , the Shuimogou district and Midong district.

II The Urumqi transport integrated information management platform, consisting of 7 sub- items.

(1)The infrastructure construction of the comprehensive traffic information center and the hardware facilities of integrated information platform.

(2)The relevant system construction of the Public Security of Traffic Police Department and the access of traffic data.

(3)The relevant system construction of the Municipal Transportation Bureau and the access of the traffic data.

(4) The relevant system construction of Urban Management Committee and the access of the traffic data.

(5) The information network docking of the Municipal Economic Committee.

(6)The access of traffic data of the City Transportation Bureau .

(7)The access of the data of the Railway Bureau and the airport group.

The construction of Urumqi city intelligent transportation system is still in its infancy, with the obvious problem of the bulls management information and the lack of an integrated intelligent transportation platform and a perfect information exchange and sharing system, as a result, it becomes impossible to achieve the unity of information management and the effective use of data. To fill the gap, and promote sound and rapid development of green transport, the project plans to build a set of integrated intelligent transportation application and serving system with the travel services, traffic monitoring, intelligent bus, decision support, emergency treatment, and other functions integrated into one, to integrate the terminal systems of related departments, to realize comprehensive traffic data collection and sorting, system analysis, to enhance public travel information service, and ultimately to provide people with more travel conveniences.

IIIThe public transport infrastructure construction, including 3 small projects.

1. The transportation hub construction

A. Beijiaoterminal, is anextended one.

B. South square transit hub of the high-speed railway station, with an area of 1.4 hectares, is new.

The construction of the transit hub will effectively improve the spatial layout of conventional public infrastructure and improve the downtown static ground transportation, and thus to realize the function of the bus hub facility. Combined with the city planning land layout and the external transport terminal layout by road and rail, etc as well as the planning of urban rail transit and bus rapid transit backbone network, the comprehensive public transportation pivots we planned to construct are the Midong passenger hub integrated development and reconstruction projects and ErgongRail Passenger Terminal Project. The main functions of the northern suburb bus transfer hub project are the road passenger transport, the first and the last stops for BRT and the integrated transfer hubs; The main service functions of Ergong passenger transport hub project are the outward passenger transportation of high-tech zone, the connection to high speed railway station, the first and the last stops of BRT.

## 2.Construction of bus depot

A.Sangong bus depot, an area of 5.6 hectares, is a new project.

B.Midong bus depot, an area of 10.5 hectares, is a new project.

The main service function of Sangong bus depot is to satisfy the maintenance demands of BRT4 and other buses; The main service function of Midong bus depot is to satisfy the maintenance demands of BRT and other buses.

## 3.Construction of the first and the last stops station

A.The terminals of Midong are reconstructed.

B.The regular terminals at northern square of high speed railway station, an area of 2.5 hectares, is a new project.

On the ever-expanding of the urban area and the ever-prolonging of the bus lines, to make the area of terminals basically satisfy the demanding of buses stopping and dispatching, and combined with the recent BRT line construction and the parking demands of the corresponding public transportation vehicles, 2 bus stations are required to be renovated or constructed. The construction of the terminals of the bus will be carried out simultaneously for the regular bus as well as the construction of BRT. The main functions of Midong terminal include the providing of BRT6 line turn, the waiting for customers and departure. The main service functions of Ergong passenger transport hub include the turning around for cars, the waiting for customers and departure and overnight parking.

## IV Capacity Building and Project Management, 5 components are included

(1) Researches on the 10 relevant subjects, the main subjects include:

- Research on the “complete streets” in Urumqi;
- Research on the traffic information standardization in Urumqi;
- Research on the traffic demand management in Urumqi;

- Research on the bus-oriented development models in Urumqi;
- Research on the bus ticket fare system in Urumqi;
- Research on the congestion charges in main urban districts in Urumqi;
- Research on the plans and layout designs of public bikes in Urumqi;
- Research on the satisfaction degree of bus in Urumqi;
- Research on the regulations of parking.

(2) The project management and technical support

(3) The promotion of professional skills, investigation and training

(4) The publicity of project and public participation

(5) The cost of organizational operation

To impart the domestic and overseas knowledge of sustainable city traffic development and the successful city traffic solution to the decision makers, the administrators and professional technicians through the way of the implementing the subproject, carrying out a series of professional training and seminars. To impart the concepts of low-carbon transportation, shared transportation, public transport priority, civil bus trip and so on through the ways of broadcasting, publishing in the newspaper and advertising on the network to encourage people to adopt low-carbon traffic consumption, environmental friendly traffic behavior. Reduce car use, increase bus and non-motor vehicle transportation; Strengthen traffic management and law enforcement ability, regulate the behavior of residents traveling in order to develop civilized social driving fashion.

The component of ability construction and project management is composed of the ten themes, the ten topics mainly focused on public transport, slow traffic, bus-oriented development such as green, sustainable transport. Through the implementation of the ability construction and project management project, to improve the traffic project scientific level, the project management level of refinement, the coordination of departments and by studying more efficient policy system, and to eventually realize the sustainable development of urban traffic.

## **1.2 Purpose of the social assessment and the main methods involved**

Social analysis, one of the main parts of the project feasibility analysis, is an integral part of the world bank loan procedures, the purpose of social assessment of project is to find out the impact of the proposed project activity or social factors affected by project activities. Because social analysis activities carried out at the beginning of the project , and at the wide investigation of the affected people so that

they can understand the basic contents of the project ahead of time and have the opportunity to participate in project design, and is beneficial for them to communicate and exchange views with the government departments in the process of project implementation, help the project unit get widely support and actively participation from the most directly affected in individual and group in the design and implement of project(especially the poor people who are easily neglected, ethnic minorities, women or the other groups),to identify and expand the positive role of the project, try to avoid or reduce negative social impact. At the same time, social assessment also lay a foundation for later project monitoring and evaluation.

From the point of project objectives, project will improve the overall traffic in Urumqi, especially public transport ,thus improve the city traffic environment, optimizing the economic and social development basic condition ,in improving the efficiency of the residents and increasing the residents' development opportunities ,play a great role in helping improve the quality of life.

But at the same time, due to the achieving of project will involve some residents relocation ,in the process of project implementation to the urban traffic and residents travel will bring temporary barriers, and the reasonable setting of traffic signs have relationship to the residents' travel convenience and security. besides, Urumqi mummified is a multi-ethnic areas(most of the people are Uyghur and hui),due to its performance in language, customs, the characteristics of employment structure ,etc, the project is particularly affected, so before the project construction, social assessment work is extremely important.

The specific goals of the assessment are following:

- The specific content of project is to obtain the suggestion of increasing the traffic management and residents participation about improving the transport network, the efficiency of traffic.
- Strengthen the consulting participation ability of the most urban and suburban residents, especially minority residential area and vulnerable group, to make the project fully consider their needs and opinions.
- Providing the entire distribution of ethnic groups living in the project area, and point out the population of ethnic minority area statistics, social economic and cultural characteristics;
- Involved in the demolition of the residential area to guide and develop freely ,in advance ,people close to the negotiations, to ensure that the design of the project activity in accordance with their needs, so as to get involved in the broad support of the requisition groups.
- The negative impact of the identification project ,especially caused by the proposed road improvement and construction of involuntary migrants ,in order to avoid or reduce impact and risk.

- Provide baseline data for the project monitoring and evaluation and put forward monitoring indicators

In this research, mainly take the following survey

### **Social assessment survey method**

The project social assessment survey for the bank assessment and provide social stability risk analysis to the national development and reform commission, by the same team and at the same time, sharing the survey data.

The working outline plans for convening 50~60 games, the number of all works of people attending the meeting is about 350~480; the number of people who involved in individual in-depth interviews survey is about 140; we did about 1400 sampling surveys and about 20PRA surveys.

#### **(1) Method used in meetings**

The investigation is planned to convene 50~60 games. According to the specific content of four sub-projects in the project and the community distribution, we should make sure no less than 25 survey spots. Each survey spot will convene 2~3 forums(including ordinary residents、 minority、 poor population、 women、 individual business、 relocation household. If there are relocation households), we would appoint 7~8 people to make a survey about those affected people's opinions about project preparation, implementation and effects and discuss the problems that they would face and come up with the improvement measures. The members participating should be sufficiently representative and appropriate in numbers in social background, gender, nationality, economic level, occupation and project benefit.

#### **(2) Method used in individual interviews**

Individual interview plans to interview about 140 people and we will choose one or two people (including community administrators, religious people, intellectuals and relocation households and so on) to make in-depth interview from each survey forum so that we can know their production and living condition, the effects of project and their attitude to the project design and its carrying out. Nationality, gender, age, occupation and other aspects will be taken into consideration on the subjects' choosing. The subjects we chose are mainly those who have a deeper understanding about the survey spots and the project. What's more, we will pay a special attention to the ethnic minority affected people.

Besides, we will interview the local competent department, city and roads planners and traffic controllers to figure out the influence of the project establishment and implementation.

#### **(3) Method used in sampling questionnaire**

The planned sample size of the survey is 1400. We chose people from different stratus, industries, ethnics, genders and ages, to investigate their ways of going out, to

evaluate the city traffic conditions to find out the problems existed and their ideas of the improvement measures.

(4) We also appropriately adopted the Participation Quick Assessment (PRA) investigation method, the total number is no more than 20.

Making social assessment helps determine the project stakeholders to make prioritization of the related social issues (like poverty, vulnerability, equality, nationality and gender, etc ) as well as establish a participatory process.

The social assessment of the project needs to collect more related documentation. The survey should be carried out in selected community, shops and sensitive point of the project area and mainly adopts the combination of group discussion which is separated into several categories and semi-structure interview, and aided by the technique of Participatory Rapid Appraisal(PRA), then is the questionnaire.

The investigation should be representative and universal as much as possible. In the selection of the survey points and respondents, including the effects of various types of project, for example, the different groups from diverse influences. We should pay attention to the underprivileged groups, ethnic minorities, and the households who are greatly affected by land requisition and demolition in this project.

**Principles of survey:** It emphasizes that we should consult with the related communities and departments, and the consultation should be prior notified, public and let the participants speak out freely, so that we can fully understand their benefits and demands that they deal with the development of local transportation, and prior requirement from the underprivileged groups and ethnic minorities should be given special attention and respect.

**Language used in the survey:** Whether questionnaire or interview, when most of the respondents come from ethnic minority regions, we should hold conferences and personal interviews in local language.

At the beginning of field research, the administrative office notified that the projects of special lines only for bicycles and whole streets were cancelled, so the four special lines only for bus should be cancelled later when we modify the reports.



**Table1-1 The distribution of various research methods in associated communities and departments of each sub-item of the project**

Categories of the Project Research methods	Sub-item one				Sub-item two	Sub-item three	Sub-item four
	The communities with 3 BRT lines passing by.	The communities with 4 special buses lines passing by.	The communities with 2 whole streets passing.	The communities with 2 slow lanes for bicycles.	Departments of traffic integration information platform	The communities with 6 transfer hubs and first and last stations for parking and protection passing.	Capacity building and project management
Forum	15 times about 105-120 people	10 times about 70-80 people	10 times about 70-80 people	6 times about 40-50 people	7 times about 30 people	6 times about 40-50 people	
Personal interview	40 people	20 people	20 people	20 people	14 people	30 people	3-5 people
Sampling questionnaire	700 copies	300 copies	200 copies	100 copies		100 copies	
PRA(Participatory Rapid Appraisal)				10 copies		10 copies	

### 1.3 General conclusion and suggestions

After the social analysis team organized a survey in the lines of proposed projects and related regions, which was aimed at the residents, enterprises and government departments that are affected by the project, we should know the main stakeholders' attitudes toward the project, some problems that may arise and their advice and suggestions to project. Generally speaking, whether the affected shops and enterprises or the regional residents, most affected people have a full knowledge and approval of the positive influences of the project, and they support the execution of it. And they think developing public transport is a very important way of improving the traffic jam in Urumqi and the living standards of residents, which is not only convenient but also beneficial to the energy conservation and environment protection as well as the

improvement of atmosphere quality. For the possible problems that the project may bring on their lives and work, most of them express their understanding and hope that the government and the project construction unit can pay more attention to the relevant issues about the public interest, including the choose of the bus stop , the increase of crossing facility and the issues of pedestrian safety.

The Main Suggestions:

**I . The project can only proceed smoothly under the government's strong encouragement, so the government has an important responsibility for supervision and coordination.**

(1)The Government should set up a platform for BRT construction companies, municipalities and the relevant traffic departments to enable the project contractor and affected people to communicate, which is also beneficial to the policy making rather than put all the pressures on the government.

(2) Supervision of BRT construction should be under the premise of ensuring engineering quality. Shorten the construction schedule can ease the traffic pressure, but if the roads engineering quality is not up to standard, not only will affect the city traffic, also will cause the dissatisfaction of the people.

**II. The affected residents, relevant units and shops have the right to know, to participate, and to supervise the project .**

(1) In order to give more publicity to the government BRT project including the meaning, the main approaches and the basic implementation process through the television, newspapers, radio, the Internet and other media to inform the public to the project.

(2) Before the road construction, the media and publicity work should be done well to enable the institutions and individuals directly affected by the traffic to obtain accurate information earlier and make corresponding preparation.

(3) Suggest setting up hotlines for public participation to inform the public of the information of BRT construction through the media and various billboards of BRT construction site. The suggestions and supervision of the masses must be reflected to the relevant leaders and departments in time.

(4) Drivers and a small part of households involved after the line combinations should be properly resettled. The problems existing in the placement that can't solve on their own must be reflected to the relevant government department in time so that we can properly dissolve the possible conflicts and disputes through the social force.

**III. To fully take the stakeholders interests into account**

(1)Various degrees of material compensation will be given to some affected shops, tenants. If some resettlement and reconstruction are needed, appropriate help

and give some support should be provided.

(2) In respect of road design, traffic management and road safety projects, public opinion must be considered.

(3) The affected people have the right to supervise the fairness and justice of land and housing levy in asset valuation, as well as the implementation of the employment policy, etc. If the affected people are dissatisfied with the demolition schemes, compensation standards and so on, they can appeal through certain channels. The immigrants should fully know their rights of appeal and the grievance channels.

(4) For drivers who need job-transfer training and career training, the government or enterprises should provide corresponding support, and need to pay more attention to their settlement for female workers. Especially for the overlapping of Line 613 and BRT6 in Midong district, the government or enterprises should appropriately arrange training and employment for partial drivers who need job transfer to avoid the declining of their living quality.

(5) Cautiously handle with the vital interests of the private buses owners or the operators of Line 613 in Midong district, and start the coordination and placement work in advance.

#### **IV, Improve the current traffic travel conditions by various measures.**

(1) Perfect the design of BRT4 line, the 6<sup>th</sup> line and the 6<sup>th</sup> support line.

Take the ground transformation of Altay Road, the underground pipeline replacement and the construction of BRT into one.

Rebuild the overpass or underpass at Xinjiang University North Campus gate in northwest road, and no parking is allowed on the sidewalk.

Set up a site before the timber factory and remove the garage under the viaduct.

Construct the overpass in the BRT1 line machinery plants terminus.

Expand the Zhongya South Road and change it to dual carriageway, the safe trip of the students in the nearby Forestry Department school should also be taken into consideration.

Broaden the Welcome Road and build guardrails in the middle of the road.

Partial BRT proposed roads in Tianshan old town district are too narrow, so the buses can only share the same driveway with external vehicles, and it's impossible to establish special line and can't embody the advantage of BRT. So we think that the construction of BRT needs to be considered carefully.

The vast flow of people and vehicles increased the pressure of maintaining stability in some parts of the Big and Small West Gate areas.

The first stop of the BRT station at the southern suburb passenger center should

be as close as possible to the passenger station.

Most residents claim that the Yingawati Road is not suitable for the construction of BRT.

Make the direct transfer of the BRT6 line with other BRT lines possible, so that the citizens of Miqian can be directly enter into the city.

For the roads near the Northern Suburb Passenger Center are too crowded, so we advise to widen them.

Don't change the 906 bus route during the construction.

Establish pedestrian crossing facilities at the Kashi East Road and Midong South Road Crossroads.

Advise to respectively install a traffic light at the Peace Bay Home junction and Ergang farmers market junction.

Advise to establish a temporary station in Kazi bay during the project construction to shunt vehicles.

Advise to set up stations in the middle of Cement Factory station and Liaoyuan Street station.

Reduce seats of BRT buses according to the actual demand.

Set the ring overpass or underpass in the intersection of major stations like Railway Bureau station.

Widen the Songshan street.

Allow buses to pass at the Third North Latitude Road.

Appropriately adjust the route of BRT6 in Railway Bureau segment.

Advise to decrease the restriction of the traffic lights in the non-trunk road.

Extend the BRT 6 branch line to Bagang.

The sites between Changsha Road and Tianjin Road are too dense , while those in Siping Road are scarce.

Set up more lines and in population intensive area.

(2) Promote the traffic management.

Integrate and optimize the bus lines, and extend the common bus to the assistant road and the city extension.

Improve the traffic sign settings, design the traffic lights scientifically and reasonably.

Pay attention to the special needs of the elderly, and establish more special seats

for the old, weak, sick, and disabled on the public transportation; make sure that the station names sign is striving in the vehicle, prepare first aid kit to prevent the sudden disease of the elderly.

Government and enterprises should give appropriate support to drivers who are in need of transfer training and employment training, and pay more attention to the resettlement of female employees.

Further improve the vocational level and the cultural accomplishment of the public transportation employees.

### (3) Perfect the static parking facility construction.

Combined with “White Paper on Urumqi Transport Development” to determine the overall development strategy of small buses and parking in the city as soon as possible.

Establish strict parking completion acceptance mechanism.

Through the differentiated parking fees and the management to enhance the existing charge standard suitably and adjust the parking demand and the transportation demand reasonably.

Advise to strengthen the management of illegal parking in the road during the day, and develop schemes like no parking, allowing short-time parking and allowing long-time parking, etc.

As for the increasingly urgent parking conflicts in the old residential district, it is suggested to develop and carry out the opening parking scheme around the communities at night to relieve people’s parking problem.

## **V. Solve the prominent problems currently existing in the bus running system; improve the quality and the level of service.**

### (1) Improve the current hardware facilities of the bus stations.

Set up crossing elevator facilities at special places like hospitals where the senior citizens and the physically handicapped assembling relatively. Advise dynamically broadcasting the station names and the major places near the stations on the televisions in the BRT and the common buses. Advise separating the green belts and the restricted lanes by rocky roads as the lanes are building. Consider improving the top design of the BRT station. Consider applying solar energy to the BRT station by installing solar panels to generate electricity on account of environmental protection and energy conservation. Consider opening every ends of the stations to improve the efficiency of in and out for the sake of avoiding the congested crowds. Advise increasing the electronic direction boards as for the BRT lines transfers; illustrating the marked lines in every bus and every station; presenting them best in Chinese, Uygur, and English.

### (2) Improve the vocational level and cultural quality of the public transport

practitioner further.

(3) Optimize the bus lines to extend the bus coverage.

(4) Communicate more with the public; listen to their suggestions; take good advice from them.

**VI. Be careful to the transportation security during the construction of the BRT project; work out the transportation management plans during it.**

(1) Make adequate preparation and coordination before the construction including exchanging information between construction units and related municipal construction departments; unify the construction as best they can. Negotiate with the traffic offices, bus companies and directly affected units and institutions such as schools and markets to enable them to accordingly make the prevention and adjustment work in advance. Make sufficient media and publicity work to inform the directly affected people of the accurate information and to prepare accordingly. Get familiar with the condition of the underground pipeline network along the project at large; avoid any damage to the heating power, natural gas network management, road traffic facility, water supply and sewage pipe network.

(2) According to the specific situation, try to construct flexibly at the premise of not disturbing the residents and reducing the traffic jams.

(3) The construction should be carried out in subsection and time division. It depends on the road specific situation to decide whether the road is semi-closed or totally closed during the construction time . Limit the working range when lay the pipe network. At the key transportation junctions or roads, reserve the traffic channel and arrange the route of transport vehicle and the running speed reasonably to avoid the flowing dust pollution and safety loophole of pedestrians.

(4) Set up warning signs. According to the condition of the road passages, it should include different kinds of cautions including informing people of safety and drivers of slowing down and no entry etc.. The warning signs should be written in both Uyghur and Chinese. In the passages where people often pass, set up more pedestrians and ensure the public security.

(5) After the construction and recovering of the roads, the ancillary facilities of traffic offices must be repaired including the marks, lines and so on. The project should have budget in this aspect and be carried out by the unit appointed by the traffic offices.

(6) During the construction ,the contractor should provide the workers with the national policies and customs education to let them respect minority customs. The workers should not pollute the place where the residents drawing water in case of causing national disputations. Do not watch national religious activities .

**VII.The suggestions on minority, low incomes groups and the vulnerable groups.**

(1)Pay full attention to the outgoing and benefits of the disadvantaged groups such as low incomes people.

(2)Respect the right of minority residents who are going to be levied to choice the

setting modes. Reserve and protect local cultural characteristics actively.

(3)The workers should respect the customs of the local minorities.

(4)Boost the employment of minority farmers who has lost lands.

(5)Enhance the protection of rights and interests of the disadvantaged groups who are going to be levied their lands in the villages.

### **VIII. Suggestions on affected women in the project areas.**

(1)Increase the participation of women in the project areas.

At the design stage of the project, the design units should listen attentively to female needs and suggestions. In the implement of the project, ensure to give priority of 30% to non-technological jobs to vulnerable groups including women; ensure that men and women get equal pay for equal work at the same time; ensure if the provision correspond with the labor law such as wages and personal safety. When get the compensation of the requisition of land, make sure that women can enjoy the same right to sign to get the compensation as men.

(2)Strengthen the training of labor skills to women.

In the project area, most women are the main undertaker on housework, so their training time are generally limited. Moreover, women in the project area are less educated and their abilities to accept the skills training are also limited. However, those factors should not be the obstacles to restrict them accepting the technical and skills training. The features of female housework should be considered in terms of the training time, which can be chose at nigh. Training method of reading and explaining the knowledge of simple science books inadvisable; more attention should be paid to practicability and demonstration of teaching methods.

(3)Strengthen the female awareness of safety.

Potential problems or dangers should occur if some women do not have a strong sense of safety and out of looking after their children. So it's necessary to educate the women who undertake the main responsibility of looking after their children on safety awareness to reduce the risks.

### **IX. Other opinions on the improvement of the project designs.**

(1)The project planning should avoid wasting of resources, and the plans of transport lines should be long-term, well-organized, reasonable, and scientific ones.

(2)Integrate and optimize the transport lines, and the common buses will extend outward to the causeways and cities.

(3)Improve the setting of traffic signs; design the traffic lights with scientific rationality.

(4)Increase the green belts on both sides of the roads.

- (5) Increase the pedestrian facilities.
- (6) Consider the special demands of elderly.
- (7) Improve the restricted lanes further for the physically handicapped.

## **2. Analysis of social assessment**

### **2.1 The economic development and the population profile within the project areas**

#### **2.1.1 The general introduction to the development of the society and population in Urumqi**

Urumqi Municipality, the capital, political, economic and cultural center of Xinjiang Uygur Region, is the bridgehead of the second Euro-Asia Continental and an important westward opening passageway to the outside world. It is situated in the hinterland of Eurasia and between the western and eastern part of north Tianshan Belt. Surrounded by high mountains at east, west and south with the terrain of high in southeast and low in northwest, it reaches the south of Junggar Basin. Urumqi is 680-920 meters above sea level and the city is at an average elevation of 800 meters. There are Urumqi river, Baiyang river, Chaiwobao lake, etc. with Urumqi river flowing through the city from the southwest to the north. Urumqi belongs to temperate zone continental drought climatic zone, which brings large temperature differences between day and night as well as season differences with longer summers and winters and shorter springs and autumns. On average, its annual precipitation is 194mm. The warmest months come at July and August with the daily average of 25.7°C, and the coldest comes at January with the daily average of -15.2°C. The extreme temperatures ranged from -41.5°C to 47.8°C.

Urumqi currently comprises 8 county-level subdivisions: 7 districts and 1 county: Tianshan District, Saybagh District, High-tech District (new urban district), Shuimogou District, Toutunhe District (economic development district), Dabancheng District, Midong District and Urumqi County. Urumqi occupies an area of 13,800 km<sup>2</sup> and built area of 368.4 km<sup>2</sup>. It bounds on Turpan city in the east, Changji city in the west; Tuokexun county in the south, Fukang city in the north as .



**Table2-1 The district and county population of Urumqi in 2012 Unit: person**

Data sources: Urumqi Statistical Yearbook, 2013

Districts	Total households	Total population	Gender	
			Male	Female
Tianshan District	185,369	576,246	289,959	286,287
Saybagh District	176,600	537,548	273,209	264,339
High-tech Zone (Xinshi District)	183,311	556,204	294,903	261,301
Shuimogou District	98,287	301,441	161,095	140,346
Economic Development District (Toutunhe District)	81,644	230,230	122,815	107,415
Dabancheng District	14,630	42,170	22,553	19,617
Midong District	96,792	274,332	141,844	132,488
Urumqi County	20,875	59,862	29,732	30,130
Total	857,508	2,578,033	1,336,110	1,241,923

Urumqi is a city with varied national residents. There are 13 nations lived here ever since, and the minorities of them are Uyghur, Hui, Manchu, Xibie, Mongol, Kirgiz, Tajik, Tater, Uzebk, Russians, Daur with the exception of Han. At the end of 2012, the total population was 2.578 million among which the non-agricultural population took up 72.2%. 49 nations have settled here including Uyghur, Han, Kazak, Hui, etc. of which there were 1.872 million Han, 332.6 thousand Uyghur, 69.2 thousand Kazak, 259.5 thousand Hui, and 44.8 thousand minority. The minorities took up 27.4% of the whole population while the Uyghur took up 47.1%. Please look at sheet 2-1, 2-2.

**Table 2-2 Population of every nations in sub-regions of Urumqi unit: person**

Administrative region	total	Han	Uyghur	Hui	Kazak	Others
Tian mountain zone	576246	357646	148268	43609	13954	12769
Sha Yibake zone	537548	417471	63704	37061	8478	10834
High-tech zone(new urban zone)	556204	440905	52084	45485	7354	10376
Shui Mogou zone	301441	254949	29043	10571	2969	3909
Economic development zone(Tou Tunhe zone)	230230	178437	24689	22004	1847	3253
Da Bancheng zone	42170	18956	2614	13798	6575	227
Mi Dong zone	274332	182673	11358	72862	4458	2981
Urumchi county	59862	20945	860	14119	23518	420
Total	2578033	1871982	332620	259509	69153	44769

Data source: *Urumqi Statistical Yearbook, 2013*

Since the reform and opening-up policies, especially the strategy of developing the west were carried out by the government, Urumqi has experienced a rapid economic growth and become a rising omnibus city of industry and commerce. Urumqi ranked 24th in “ the Top 50 of the Chinese City Comprehensive Economy Strength ” , and rated as one of “ the First Superior Forty City of China City Investment Environment ” in 1992. The files from the State Statistics Bureau reveal that Urumqi occupies 6th in the 31 cities of second category among “ the Top 50 of the China Society and Economy Strength ”. The city realized target that the Gross Domestic Product should triple than 1980’s in 2000, and started to realize the third step of the strategic target for modernization. According to the statistical data in recent years, the GDP of Urumqi and regional fiscal revenue have respectively occupied around one fifth and one third of the municipality. The main Per Person Economic Measurements like Per Capita GDP, Fiscal Revenue, Total Retail Sales of Consumer Goods, per Capita

Disposable Income of Residents and so on has ranked the forefront of China 10 big cities in the west.

According to the Urumqi Government Work Report, Jan. 9th, 2013, the city realized Regional Domestic Product of 206.9 billion yuan in 2012 with year-on-year growth of more 17.3% than last year. Among then, the first industry realized the added value of 2.5 billion yuan, an increase of 6.5%; the second industry realized the added value of 87.8 billion yuan, an increase of 16%; the third industry realized the added value of 115.7 billion yuan, an increase of 18.6%. The industrial structure proportion of the first, second, and third industry was 1.2 : 42.6 : 56.2 . The Fixed Assets Investment of the Whole Society was 100 billion yuan, 59% up from a year earlier; the Total Retail Sales of Consumer Goods was 83.4 billion yuan, 15% up from a year earlier; the Total Amount of Foreign Trade Import and Export was 10.4 billion Yuan, 15% up from a year earlier; the Whole Fiscal Revenue was 69.3 billion Yuan, 20.58% up from a year earlier; the Local Fiscal Revenue was 31.8 billion Yuan, 20.3% up from a year earlier; Urban Per Capita Disposable Income was 18.4 thousand Yuan, 14% up from a year earlier; Per Capita Net Income of Farmers and herdsmen was 10.356 thousand Yuan, 22.8% up from a year earlier.

Because of its special geography and geographical advantages, Urumqi has become a transportation junction, which connects the south and the north of Tianshan, and links Xinjiang and the inland. With 1 First Class Ports and 5 Second Ports have been built, it can communicate conveniently with 8 countries bordering Xinjiang, especially some important ports in the five countries in Central Asia. As one of the five gateway airport in China, Urumqi Airport opens 141 domestic and international airlines, of which there are 105 domestic and regional airlines and 28 international airlines, flying to 52 domestic cities, 31 international cities, and 21 foreign countries. Since the Urumqi railway station is the Xinjiang railway hub, after the Lanzhou-Xinjiang railway and the southern Xinjiang railway completions, its function as the distribution center of air passengers and cargoes for the inland and Central Asia has increased greatly. Its railways are really convenient with three national highways through the city, the entire Xinjiang, the country, and neighboring countries. Urban main road of the bank expressway has connections with Tuwuda High-Grade Highway and Wukui Highway; the Outer Ring Road is opened at present. In 2012, 3 billion Yuan was invested into the urban construction, and the first phase construction of the “Tianzi-road” was accomplished in 198 days, which made the overall transportation capacity improved by 30%. Nearly 50 billion Yuan was invested in implementing a number of key infrastructure projects. There were 24 new roads, such as the second-stage of the Exhibition Road, the North Exhibition Road, the northward Beijing Road, the north main road of the city; the construction of subway line one was officially launched. 24 “Dingzi-Roads” and “Duantou-Roads” were built, 600 galleries were improved, and 5 new mechanical parking garages and 53 parking lots were completed, which effectively relieved the condition of traffic congestion and parking problems. In order to improve the environment, Urumqi also raised 12.1 billion yuan (government investment: 7.2 billion) to substitute gas for coal in all

coal-heating facilities in the central urban area. The reduction of sulfur dioxide emission was 60000 tons, of smoke-dust was 20000 tons, of nitrogen oxide was 10000 tons that year.

Various social undertakings of Urumqi have developed roundly. At the end of 2012, internal students of all kinds in the city was 659.9 thousand: 136 thousand students studied in 18 regular institutions of higher education; 88.2 thousand students studied in the regular secondary vocational schools; 168.9 thousand studied in the ordinary senior and high schools; 200.2 thousand students studied in the primary schools; 66.1 thousand students studied in the kindergartens; 5 hundred students studied in the special education schools. In 2012, 41 community health service centers were extended; sufficiently engaging in the food and drug safety and cracking down on illegal practices medicine rectification activities. Employment and social security work were strengthen continuously; the increase of employed people was 84.5 thousand, the registered urban unemployed rate was 3.43%. 99 thousand people completed various kinds of occupational skills training, and 50 new " one-stop " Employment Service Hall was built. There were 4.12 million town workers insuring " five insurance ". The rates of social pension insurance for urban residents was up to 87.9%, and the new type of rural social pension insurance rate was up to 94.6%. Per capita basic old-age pension for retirees from enterprises were also increased to 1936 Yuan a month, and the minimum wage for town workers was up to 1140 Yuan a month. The social security subsidies and living allowance of public welfare jobs personnel was up by 361 Yuan a month. Under the dynamic management, people who were supposed to receive the subsistence allowances were ensured to gain them. Urban and rural standards were increased three times in one year; 97.42 million Yuan for subsistence allowance, and 90.78 million Yuan for all kinds of special funds were distributed accordingly. The housing security system were improved further. In 2012, 4.8 billion Yuan were invested to build 10662 sets of new housings, renovate 22 projects of shantytowns, and finish 9 municipal infrastructure programs of the 22 projects in the aspects of roads and water supply and drainage etc.. The construction of affordable housing was reinforced , and 4552 sets of public rental housings, 5072 sets of low-rent housings, and 2544 sets of economy applicable housings were built.

The implementation of the Project Transportation Improvement in Urumqi II is to further improve the overall traffic situations, especially for the urban public traffic service system; to optimize the social basic condition of its development; to increase the level of intelligence of the city; meanwhile, to improve the efficiency of residents' going out, to increase their opportunities of development, and to largely improve the quality of their lives.

### **2.1.2 Basic situation of the investigation site of the project**

**The situation of the economic and social development in the project areas:**

**Tianshan District:** Located in the southeast of Urumqi, it stems from the east of the Cemetery Ridge, neighboring Shuimogou District, and Dabancheng District; the west of Bank Road and Peaceful Canal on the other side of the Saybagh District, the south of Tuoli Town near Urumqi County, the north of the junction of Hongshan road and North Bank Road connecting with Shuimogou District. In Urumqi, Tianshan District is the center of its politics, economy, culture, finance, and the place where the autonomous region party, politic, military, and the head of the Xinjiang production and construction corps organ located in. The total acreage of this district is nearly 200 square kilometers, and the acreage of the built district nearly 50 square kilometers. By the end of 2012, Tianshan District had 14 sub-district offices, 178 community residents committees, and one village. There were Han, Uygur, Hui, Kazak, Mongol, Kirgiz about 44 nations with the population of 576.2 thousand, of which the ethnic minority population was 218.6 thousand accounting for 37.94%. It is a multinational regions. A total of 60 religious activities sites in this district, among which there were 57 mosques, 3 churches. In the current, there were 55 trunk roads, 130 secondary roads, 879 roadways, and each of them accounted for one third to the city. Percentage of greenery coverage was 28%. Various social undertakings had been developing steadily; 133 various types of schools at all levels were in this area; the coverage rate of community public health service was up to 90%; 2449 households of 5457 persons with low incomes enjoyed the minimum living guarantee. In 2012, the gross value of regional production was 29.3 billion Yuan, 17.87% up from a year earlier; the local fiscal revenue was 2.263 billion Yuan, 33.9% up from a year earlier; the total retail sales of social consumer goods was 19.8 billion Yuan, 19.2% up from a year earlier. Net incomes of farmers and herdsmen were 9354 Yuan.

**Saybagh District:** Located in the west of the capital, it is one of the central urban district in Urumqi. To the east it is near the Tianshan District and Shuimogou District with the Bank Road between them; to the west, it is near the 104th regiment and Toutunhe District; to the south, it stems from Urabo, bordering on Urumqi County; to the north, it reaches the Xinyi Road near the new urban district. The total acreage of this district is 427 square kilometers, and the acreage of the built district is 25 square kilometers. By the end of 2012, the Saybagh District had 12 sub-district offices, 150 community residents committees. There were Han, Uygur, Hui, Kazak, Manchu, Mongol, Xibe, Russia about 38 nations with the population of 537.5 thousand, of which the ethnic minority population was 120.1 thousand accounting for 22.34%. 4964 people with low incomes received the minimum living guarantees. A total of 42 religious activities sites in this district, among which there were 38 mosques, 3 churches, 1 Taoist temple. Because of the convenient transportation, developed telecommunications, and superior geopolitical and geographical environments, Saybagh District is with the condition of economic development. Lanzhou-Xinjiang railway and the northern and southern Xinjiang railways of the Eurasian Continental Bridge across this district, which is crisscrossed with the 321 national highway, 216 national highway, Ukraine spit major highway, Urumqi-Kuitun highway, and the roads that lead to the field where are covered by northern and southern railways fields,

and the urban roads; as a result, a transportation network composed of railways, national highways, roads is formed. The north-south transportation hub station, the long distance bus station, and most of the local governments in Xinjiang that station in the compact community in which the agencies of Urumqi cluster, make the Saybagh District become a window for Chinese and foreigners observing and inspecting the construction and development in Urumqi. In recent years, Saybagh District has been vigorously promoting the third industry, exploring and developing the secondary industry, adjusting and developing the first industry, vigorously developing the regional integration economy and the non-public sector of the economy, which makes a great achievement in economy of this district, and make it an active city in Urumqi in as for its prosperous trade. At present, a commercial street from Friendly Road to Yangtze River Road has been formed, so as the five prosperous trade circles respectively at the hearts of the South Railway Station, Hongshan, Friendly, Beiyuanchun, Xishan have been formed. A large professional market of which the Xinjiang Shopping Mall, DwHui Real Estate, Huochwtou, market of new Beiyuanchun are considered as the key points; and a main part which consists of the commercial street made of the five trade circles, and two collecting and distributing centers—petty commodities and agricultural products have contributed a pattern of large commerce and trade beginning to take shape. In 2012, the gross value of regional production was 25.168 billion yuan; local fiscal revenue was 1.578 billion yuan; total retail sales of social consumer goods was 23.61 billion yuan; net incomes of per capita farmers and herdsmen were 9798 yuan.

**High-tech District:** Located in the northwest of Urumqi, with the acreage of over 300 square kilometers, it is one of the central district in Urumqi. By the end of 2012, the High-tech District (new urban district) had 4 countryside, 1 town, 13 sub-district offices, 23 administrative villages, and 127 community residents committees. There were Han, Uygur, Hui, Kazak about 38 nations with the population of 556.2 thousand people, of which the ethnic minority population was 115.3 thousand accounting for 20.73%. 2852 people with low incomes received the minimum living guarantees. The High-tech District (new urban district) is a new city which has risen sharply in recent years. It has two industrial parks, and central authorities, autonomous regions, garrisons stationed in Urumqi, armed police forces and production and construction groups are in total of 500. There are more than 20 scientific research institutes such as Xinjiang Branch Institute of Chinese Academy of Sciences, Xinjiang Academy of Social Sciences, Xinjiang University of Finance and Economics, etc. ; and 33 secondary institutions. Besides, it has 43 of the top fortune 500 companies at home and abroad, more than 8000 independent corporations. The High-tech District is a concentrated district of the high-tech in Urumqi, even in Xinjiang. The Urumqi International Airport is one of the five major portals of the nation, and the largest collecting and distributing center in Xinjiang—Urumqi North Railway Station the freight yard are located in this district, are the transportation hubs of Xinjiang Uygur Autonomous Region, and vital international channels connecting the Eurasian and the middle East. This district has 71 sites for religious activities, including 67 mosques, 4

Christian meeting grounds. In 2012, the gross value of regional production was 68.652 billion Yuan, 20% up from a year earlier; the local fiscal revenue was 5.122 billion Yuan, 53.1% up from a year earlier; the total retail sales of social consumer goods was 17.07 billion Yuan. Net incomes of farmers and herdsmen were 11368 Yuan.

**Shuimogou District:** Located in northeast of Urumqi, with the acreage about 277.56 square kilometers, it is one of the four central districts in Urumqi. To the south, the Hongshan road is the boundary near the Tianshan District; to the west, the Bank Road is the boundary closed to the Saybagh District and the new urban district; to the east and the north, it is connected to the Midong District. By the end of 2012, it had 8 sub-district offices, 1 rural affairs management office, 89 communities, 6 administrative villages. There were Han, Uygur, Hui, Kazak about 29 nations with the population of 301.4 thousand people, of which the ethnic minority population was 46.5 thousand accounting for 15.42%. 2751 people with low incomes received the minimum living guarantees. At present, it has over 900 government organizations and institutions. Urumqi Municipal Party Committee and Government, gymnasium, library, museum, South Lake public square, and Hongshan that is the symbol of Urumqi are located in this district. It is a dynamic integration of natural scenery and human landscapes, a emerging district as the traditional culture and the modern civilization merge remarkably with each other. It is the political, cultural, and the information centers of Urumqi. This district has 29 sites for religious activities, including 26 mosques, 2 Christian meeting grounds, and one Buddhist temple. In 2012, the gross value of regional production was 13.277 billion yuan; the local fiscal revenue was 1.74 billion yuan; the total retail sales of social consumer goods was 15.925 billion yuan. Net incomes of farmers and herdsmen were 10131 yuan.

**Economic Development District (Toutunhe District):** In January, 2011, Xinjiang Uygur Autonomous Region Party Committee and Urumqi municipal Party committee decided to merge the Economic Development District (founded in 1994) with the Toutunhe District (founded in 1961), which bred the Urumqi Economic and Technological Development zone. The acreage of planning management was 480 square kilometers, and the acreage of the built district was 133 square kilometers. Located in the northwest of Urumqi, to the east, it is at the side of Urumqi High-speed Railway Comprehensive Transportation Hub; to the north, it is next to the Urumqi International Airport. There are the biggest Railway Marshaling Yard in Xinjiang, the biggest Goods Storage and Transportation Station in Xinjiang, and the Container Center Station still under construction. With the Urumqi-Changji thoroughfare and the Urumqi-Kuitun expressway traversing the District, it urban public transportation is convenient. By the end of 2012, the Economic Development District (Toutunhe District) had 9 sub-district offices, 1 administrative villages, 69 community residents committees. There were Han, Uygur, Hui, Kazak about nations with the population of 230.2 thousand people, of which the ethnic minority population was 51.8 thousand accounting for 22.5%. 1074 people with low incomes received the minimum living guarantees. There are over 3800 registered enterprises, among which the key

enterprises are 588, including 126 industrial enterprises above designated size, 40 foreign-funded enterprises and 13 listed companies; and it has some investment projects on 17 companies of the “Fortune Global 500 ” and 30 companies of the “Fortune Chinese 500”. It has created three pillar industries of metallurgy, wind power, and foods and beverage industry; four dominant industries of automobile making, mechanical equipment, new-style building materials, and modern logistics; four major emerging industries of new-style coal chemical industry, information technology, bio-pharmaceutical technology, and advanced material; and on these basis, seven base of the biggest wind power manufacturing equipment in China, the biggest metallurgical industry in Northwest, the emerging automobile and engineering machinery manufacturing industries in Northwest, the biggest foods and beverage processing industry in Xinjiang, the idea-created business headquarter in Xinjiang, the international trade logistics and exportation manufacture facing Eurasia, and the software information industry facing Central Asia. In 2012, the gross value of regional production was 34.004 billion yuan, 32.3% up from a year earlier; the local fiscal revenue was 4.717 billion yuan, 27.5% up from a year earlier; the total retail sales of social consumer goods was 2.74 billion yuan. Net incomes of farmers and herdsmen were 10380 yuan.

**Midong District:** Approved by the State Council in 2007, Miquan City which belonged to Changji Hui Autonomous Prefecture was incorporated into Urumqi; meanwhile, the Miquan City and the Dongshan District in Urumqi were canceled. Consequently, the Midong District was set up. Midong District formally established in August 1, 2007, and became the test plot and initiating district for the Party Committee of the Xinjiang Uygur Autonomous Region, People's government and the Party Committee of Urumqi-Changji to implement Urumqi-Changji economic integration. It is a sub-center ensured to be planed of the capital, Urumqi; the biggest core district of manufacturing base in Xinjiang; the key chemical industry town in Xinjiang; the key exportation manufacture base in Xinjiang; the green foods base in Urumqi; and the advanced ecological district for residence in Urumqi. Located in the northeast of Urumqi, 15 kilometers from downtown of Urumqi, to the east, it next to Fukang City; to the west, it is near Changji City, Wujiaqu City and Urumqi County; to the south, it is connected to Dabancheng District in Urumqi; to the south, it is linked to Fuhai County. The acreage of administrative area is 3407.42 square kilometers, and the acreage of the built district was 40 square kilometers. By the end of 2012, the Midong District had 2 villages, 5 towns, 6 sub-district offices, 81 administrative villages, 53 community residents committees. There were Han, Hui, Kazak about 42 nations with the population of 274.3 thousand, of which the ethnic minority population was 91.7 thousand accounting for 33.43%. 1873 people with low incomes received the minimum living guarantees.

Midong District is rich of natural resources: mineral resources, such as coal, siderite ore, lime stone, petroleum, argil, quartz sand, and mirabilite over 20 species. And it is one of the 100 key coal-producing districts or counties in China.



As for the obvious advantage of Midong district, it is no more than 20 kilometers from the Urumqi International Airport, the South, West, North railway stations. With the National Highway 216, the great Huangshan Mount Railway, and the Petrochemical Railway traverse this district, the Turpan-Urumqi-Huangshan Mount Highways and the Urumqi-Kuitun Highways converge here. Urban roads, the traffic artery of Urumqi connecting the northern, extend in all directions.

The implementation of Urumqi-Changji economic integration has brought Midong District unprecedented opportunities to develop. Since 2007, in Midong District, the national economy has grown rapidly and the comprehensive strength has reached a new level. In 2007, the gross value of regional production was 9.824 billion yuan; the local general budget fiscal revenue was 0.592 billion yuan; net incomes of farmers and herdsmen were 6128 yuan. By the end of 2012, the gross value of regional production was 24.002 billion yuan, 33.3% up from a year earlier, among which the proportion of primary industry, secondary industry and tertiary industry reached to 3:74:23; the local general budget fiscal revenue was 2.496 billion yuan, 78.3% up from a year earlier; the total retail sales of social consumer goods was 3.497 billion yuan, 48.6% up from a year earlier; net incomes of farmers and herdsmen were 10602 yuan. As few as five years later, the gross value of regional production has risen by 145 %, and the per capita net incomes of farmers and herdsmen have broken the million marks, coordinating to the main districts in Urumqi.

**Table 2-3 the Main Economic and Social indexes of the Project Area in 2012**

Index	Tianshan District	Saybagh District	High-tech District(new urban district)	Shuimogou District	Economic Development Zone(Toutunhe District)	Midong District
The total area (sq. km)	171	422.5	262.52	277.56	275.59	3407.42
Households (household)	185369	176600	183311	98287	816444	96792
Population (million)	57.62	53.75	55.62	30.14	23.02	27.43
The proportion of non-agriculture population (%)	81.1	84.76	69.2	64.63	77.8	54.3
The proportion of ethnic minority populations (%)	37.94	22.34	20.73	15.43	22.5	33.43
GDP (100 million Yuan)	293	251.68	686.52	132.77	340.04	240.02
Industrial Enterprises above Designated Size (a number)	15	22	78	18	111	89
Crop sown area (hectare)	1902	1103	8920	820	8617	18974
Livestock million (head)	1.68	0.31	3.69	2.27	10.60	19.81
The per capita net income of	9354	9798	11368	10131	10380	10602

farmers (Yuan / year)						
To enjoy the minimum living guarantee (person)	5457	4964	2852	2751	1074	1873
Floating population (person)	106866	74543	124072	97062	46221	16928

Data source: *Urumqi Statistical Yearbook, 2013*

## 2.2 Analysis of the living conditions of the community

Residents in the project area can be divided into two categories: the residents living in the urban where the project is implemented in, and the residents living in the towns and villages where the project has influence on, concentrating in Town Gumudi , Zhenxing Village, Donggong Village in Midong District. In Urumqi, although the gap of lives between urban residents and rural residents still exist, with the development of urbanization, it will get smaller and smaller. The following is a general analysis about the present situation of the community residents' lives in this social survey.

### 2.2.1 The occupation and literacy of the residents

In 2012, there were 18 institutions of higher education, 196 local secondary schools, and 147 primary schools in total in Urumqi municipal district; the number of students on campus was 659.9 thousand, of which 223.564 thousand students were Minority. In the whole city, there were 38.805 thousand full-time teachers, of which 11.284 thousand teachers were minority. The enrollment rate of primary school age children was 100%, the enrollment rate of junior middle school age youths reached 100%, and the enrollment rate of junior high school graduates entering high school was 69%. In the whole city, all kinds of “bilingual” (Chinese and Uygur) classes reached to 667; there are 25005 students, accounting for 88% of the total number of minority students.

**Table 2-4      General situation of various schools in Urumqi.**

Index	Internal students	Minority students	Staff	Full-time teachers	Minority teachers
General institutes of higher education	135954	61790	16159	9584	3349
General mid-range vocational and technical schools	88209	39209	5136	3270	1223
General secondary school	168909	43805	17993	11642	2474
Senior high school	64636	14146	9291	4371	827
Junior high school	104273	29659	8702	7271	1647
Primary school	200248	64460	7940	10769	3561
School for deaf-mutes	492	135	187	129	20
Kindergarten	66050	14165	6660	3411	657
Summation	659862	223564	54075	38805	11284

Data source: *Urumqi Statistical Yearbook, 2013*

Seen from the experience of previous researches, school record conditions of the residents can directly influence their personal incomes and family living conditions, for the relevance between it and their occupations is strong. The questionnaire survey shows that officers and clerks in institutions and enterprises are of high education degree. The education degree of migrant workers, the unemployed and farmers is relatively low, but still a few people are highly educated. In the questionnaire, the proportion of people received college education, junior high school education and senior high school education are much the same, all between 20% and 30%; the proportion of people received primary education and illiteracy are limited, only 8.7% of the sample volume. Overall, the proportion of the sample of high school education and the education below it are high, and generally the educational levels of retirees and housewives are low.

**Table 2-5 Relevant statistical analysis table of the samples occupation and the degree of education (%)**

	Bachelor degree or above	Junior college	High school( technical secondary school, professional high, vocational school)	Junior high	Elementary school	Illiterate and semi-literate	Sample capacity
Enterprise workers	7.9	22.3	43.1	20.8	5.4	0.5	202
Peasants	17.0	14.9	8.5	34.0	18.1	7.4	94
Officers and clerks in institutions and enterprises	34.1	40.7	21.2	3.3	0.7	0	302
Individual household and private entrepreneur	8.2	25.0	29.6	25.5	9.2	2.6	196
Company employees	29.0	42.0	19.1	8.4	1.5	0	131
Temporary workers	4.6	18.9	41.2	31.1	3.4	0.8	238
Unemployed	3.2	25.4	22.2	27.0	19.0	3.2	63
The emeritus and retired	3.6	16.0	30.9	29.4	12.9	7.2	194
Housewives	3.0	16.4	34.3	40.3	6.0	0	67
Students	0	27.8	66.7	0	5.6	0	18
Other	27.0	32.4	24.3	8.1	5.4	2.7	37
Total	14.3	26.3	29.7	20.9	6.6	2.1	1542

## 2.2.2 The family income of the residents

Just take a look at the situation of incomes, the respondents whose family yearly incomes are below 20 thousand yuan only accounted for 16.7% of the total sample. The number of farmers whose incomes are below 5 thousand yuan accounted for 17 % of the total farmer sample . Part of their incomes in farmers' incomes are not manifested in the form of cash, and most of them are self-produced. So if the farmers' incomes only count on the cash, incomes of this level will seem lower. Judging from the data, the highest proportions in different occupations separately are the incomes of: enterprise workers, 40-60 thousand yuan, accounting for 30.2%; farmers, 20-30 yuan, accounting for 20.2%; officers and clerks in institutions and enterprises, 40-60 yuan, accounting for 27.2%; individual households and private entrepreneurs, 40-60 yuan, accounting for 25.5%; company employees, 30-40 and 40-60 yuan, each accounting for 26.7%; temporary workers, 30-40 yuan, accounting for 26.9%; the unemployed, 20-30 yuan, accounting for 20.2%; the emeritus and retired, 20-30 yuan, accounting for 29.9%; housewives, 20-30 yuan, accounting for 37.3%; students, 10-20 yuan, accounting for 27.8%. Generally, combining with the incomes situation of enterprise workers, officers and clerks in institutions and enterprises, the individual households, private entrepreneurs, the emeritus and retired are relative, the income of the emeritus and retired is related to the enterprise retirement which increased 10% in recent years, and the overall residents' incomes are relatively higher; people whose income is about 30-60 Yuan account for only 44.7% of the total sample.

**Table2-6 The statistic analysis of the relationship between the sample occupation and the family income in 2013. (%)**

	5000 of the Following(e xcluding 5000)	from 5000 to 10000	from 10000 to 20000	from 20000 to 30000	from 30000 to 40000	from 40000 to 60000	from 60000 to 100000	more than 100000	Sample Volume ( Entries )
Enterprise Worker	2.0	2.5	7.9	19.3	22.8	<b>30.2</b>	12.9	2.5	202
Peasant	17.0	9.6	16.0	<b>20.2</b>	5.3	12.8	9.6	9.6	94
Enterprise and Public Institution's Cadre and Clerk	4.3	4.3	7.3	13.6	18.5	<b>27.2</b>	20.9	4.0	302
Individual Household and Private Entrepreneur	1.0	1.0	2.0	13.3	23.0	<b>25.5</b>	19.4	14.8	196

Company Man	1.5	.8	4.6	15.3	<b>26.7</b>	<b>26.7</b>	19.8	4.6	131
Migrant Labors	2.1	4.2	17.2	24.8	<b>26.9</b>	13.4	8.4	2.9	238
Unemployed	3.2	12.7	17.5	<b>20.6</b>	12.7	19.0	11.1	3.2	63
The Emeritus and Retirees	1.0	1.5	9.3	25.3	22.7	<b>29.9</b>	8.8	1.5	194
Domesticated Wife	3.0	.0	10.4	<b>37.3</b>	23.9	16.4	7.5	1.5	67
Student	5.6	11.1	<b>27.8</b>	16.7	5.6	11.1	16.7	5.6	18
The Rest	5.4	10.8	10.8	<b>32.4</b>	<b>32.4</b>	5.4	2.7	0.0	37
Summation	3.3	3.7	9.7	19.8	21.5	<b>23.2</b>	13.9	4.9	1542

From the survey data, households have different living conditions because of different levels of income. The layering disparity between poverty and affluence has obviously showed in the society. In terms of the income situations, in the questionnaire, most of them are low-income families, of which the proportion reaches to 47.2%. The next is the middle income families, of which the proportion accounts for 46.1%. Besides, the proportion of needy families accounts for 4.2%. Categorized by the feelings of different nations, The Kazak think that their family life states are in high-income, accounting for the highest proportion, up to 5.3%. And they also think that their family life states are in low-income, accounting for the highest proportion, up to 10.5%. Other nations such as Han, Uyghur and Hui people have same understandings of self-family income situations; they think that the proportion of median income families and low income families are both 45%

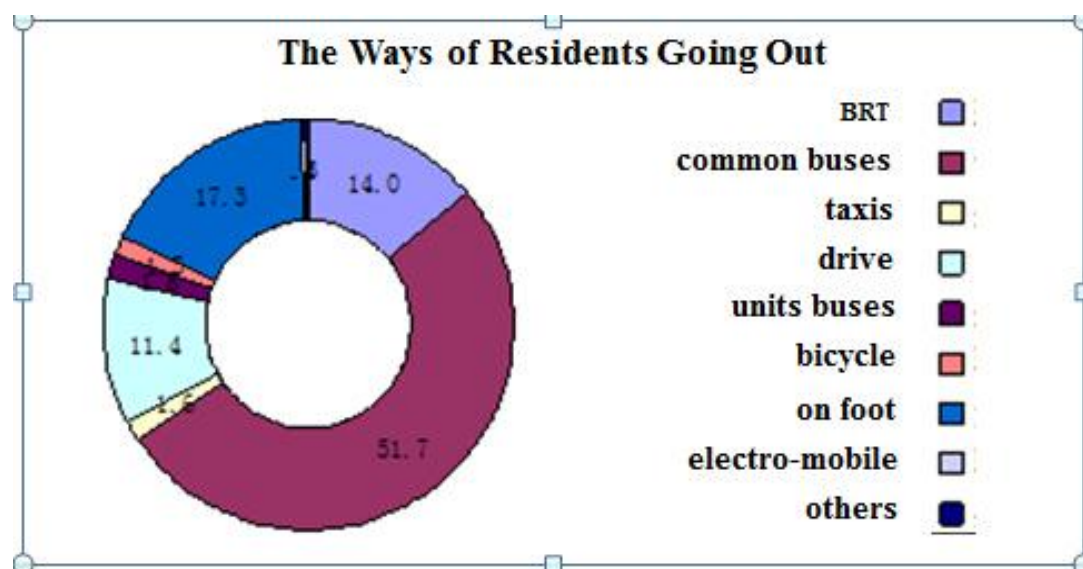
**Table 2-7 The self-evaluations on family living conditions of people investigated by ethnics. (%)**

	High Income Family	Median Income Family	Low Income Family	Needy Family	Dimness	Sample Volume (Entries)
The Han Nationality	1.7	46.4	47.6	3.8	0.5	1066
Uyghur Nationality	1.7	47.0	44.2	6.6	0.6	181
Hui nationality	2.5	41.4	51.6	3.3	1.2	244
Kazak	5.3	57.9	26.3	10.5	0.0	19
The Rest	6.3	59.4	31.3	3.1	0.0	32
Summation	1.9	46.1	47.2	4.2	0.6	1542

### 2.2.3 Main ways of residents going out

From the questionnaire data analysis result, the main ways of going out for the residents living in the project area and surrounding: taking common buses(51.7%), riding BRT(14%), driving by themselves or their family member(11.4%), and walk on foot(17.3%). The acreage of urban area in Urumqi is comparatively large; the city extension is extending continually; and the public transport system is improved constantly, too. At the end of 2012, there were 3914 buses and 156 bus routes in total in the city (including Midong District route, BRT route and the lane change route); 10046 taxis, and every ten thousand people had 16 buses, which is at the upper level among all medium and large cities in China.





**Diagram 2-1 The frequency analysis diagram of residents' ways of going out**

In the survey, the members of the research group expressly went to every BRT station, observing the situations. According to the observation, at about 9 o'clock am, GST(Beijing time), there was a full house at the starting station, and some passengers stood. At about 4 o'clock pm, the rate of the full house over 60% at the starting station. At about 6:30 pm, there was a full house at the starting station, the vehicles obviously slowed down in company with a traffic jam.

Seen from the ways that the residents of different occupations go out everyday, the public transport still accounts for the vast majority of the proportion. As for these enterprise workers and company employees who have to work every day and work for the companies that have strict management over attendance, BRT is their best choice with high proportions, separately up to 17.3% and 21.4%, which reflects that BRT has distinctly advantage in celerity and punctuality . The group of driving by themselves or family members are mainly in the groups of individuals and private owners with a proportion of 30.1%. The proportion of the top four groups of taking public transport means: students, 83.4%; housewives, 82.1%; farmers, 77.6%; retired employees, 73.1%, which reflects that the disadvantaged groups (elders, women, and low-income people) go out mainly by public transport means. For them, not only is the proportion of taking public transport means high, but the proportion of walking on foot is general high with the unemployed accounting for 22%, retired employees accounting for 19.6%. Since the distance of going out in the rural is general further than that in the urban, for farmers, the proportion of walk on foot is lower, only 2.1%.

**Feng Yunzhi, woman, 41, Han nationality, taking charge of the floating population work in Northern Latitude 3 Streets community:** there are many low-insured people, low-income people and disabled people. Because many people working for the Si Jian Building Units were fired by the enterprises' reforms, the

salary of every one of the elders were 2000 yuan a month or over, and with the little money they still had to pay for their health remedies. They did not live a rich life. Since the majority of the residents communities are the elders, the weak, the sick, and the disabled with low incomes, the demanding of buses is large. —the Third Group of Transcribed Interviews, 3/22/2014.

**Table2-8 Analysis of the trip modes of people with different jobs.(%)**

	BRT	bus	taxi	Private car	Public vehicles	bike	On foot	Electron-mobile	others	Sample numbers
Enterprise workers	17.3	54.0	2.0	6.9	5.0	3.0	10.9	1.0	0	202
Farmers	13.8	63.8	3.2	10.6	2.1	3.2	2.1	0	1.1	94
Civil servants	10.6	45.0	1.7	16.9	3.0	0.7	21.9	0	0.3	302
Individual households	12.8	36.2	4.1	30.1	0	2.0	13.8	0.5	0.5	196
Company employees	21.4	47.3	1.5	11.5	4.6	0.8	13.0	0	0	131
Migrant workers(freelances)	13.4	56.7	0.8	3.4	0.4	0.8	23.5	0.8	0	238
Unemployed people	12.7	57.1	0	6.3	0	1.6	22.2	0	0	63
Retired enterprise employees	14.9	58.8	0	4.6	0	1.5	19.6	0.5	0	194
Housewives	16.4	65.7	1.5	6.0	0	0	10.4	0	0	67
School students	5.6	77.8	0	0	0	5.6	11.1	0	0	18
Others	5.4	43.2	0	5.4	0	0	43.2	0	2.7	37
Total	14.0	51.7	1.6	11.4	1.8	1.5	17.3	0.4	0.3	1542

With the rapid growth of traffic in Urumqi, more and more people have private cars. According to the *Urumqi National Economy and Society Developed statistical Bulletin, 2012*, at the end of 2012, the total highway mileage was 2,722km, and the expressway was 192km. The amount of motor vehicles was 544.8 thousand, up by 23.65% from a year earlier, of which the private cars was 367.7 thousand, up by 31.92% from a year earlier. Seen from the table 2-3, the amount of private cars was increased from 38.160 thousand in 2001 to 367.665 thousand in 2012, nearly ten times. Quite a few of enterprise workers, farmers and civil servants choose to go out on private cars, so the proportion of private cars will still be increasing in the next few years.

**Table2-9 The statistics of the highway transportations in Urumqi over the years.**

Year	Motor vehicles	Private cars
2001	112,706	38,160
2009	297,061	164,028
2010	355,627	198,765
2011	456,057	280,830
2012	544,721	367,665

Data source: *Urumqi Statistical Yearbook, 2013*

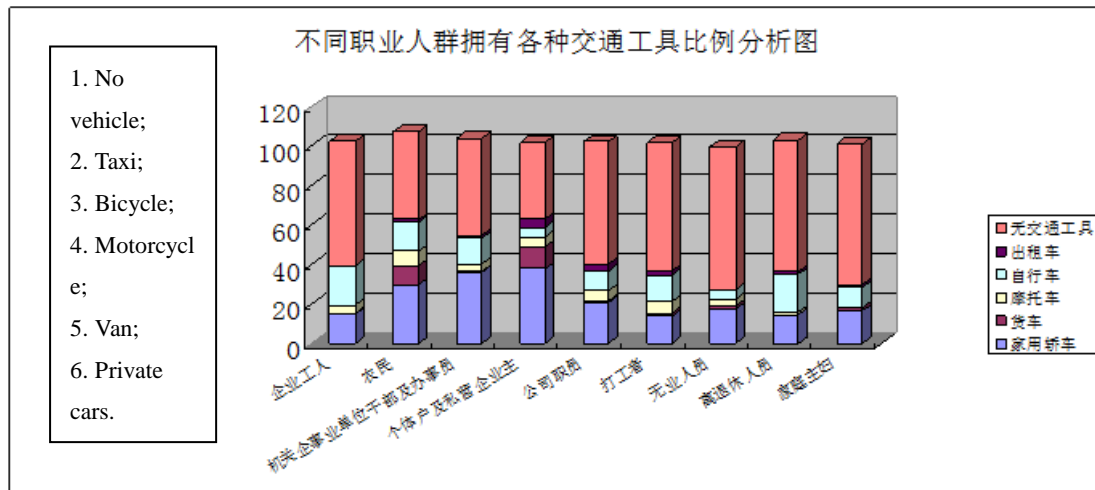
From the data analysis, domestic cars are the most popular vehicle with 22.57% among the vehicle samples that the residents possess; next are the bicycles which occupy 12.86%. Others like truck, motors and taxis all possess the percentages under 5%. Most residents, accounting for 56.3%, have no vehicles, which means that, in the project area, the main way of going out is the public transport. The analysis of vehicles possessed by different occupations reveals that the residents with high incomes are more likely buying domestic cars. Group of units and clerks of institutions, enterprises accounts for 36.1%; group of individual households and private proprietors accounts for 37.8%. With the farmers' living standard improving continuously at the range of the urban and rural in Urumqi, the proportion of farmers' possession of cars reaches to 29.8%, much higher than enterprise workers and company clerks. The possession of trucks, motors and taxis are smaller relatively. The top 3 occupations of bicycle possession are enterprise workers(20.3%), the retired employees(19.1%), and farmers(14.9%), but the total proportion of the three is small which means it is not the main vehicle. With the exception among the individual households and private proprietors and that the proportion of non-vehicle under 40%,

the proportion of other occupations are high, especially the retired employees, the unemployed, and the housewives which are all above 67%. Again, it proves that the disadvantaged groups (elders, women, and low-incomers) going out mainly depend on the public transport.

**Table 2-10 Analysis of different vehicles owned by people of different jobs (%)**

	Family cars	Truck	Motors	Bike	Taxi	Non-vehicle	Sample number
Enterprise workers	14.9	0.5	4.0	20.3	0	62.9	202
Farmers	29.8	9.6	7.4	14.9	1.1	44.7	94
Government functionary and clerks	36.1	0.3	3.6	13.6	1.0	49.3	302
Individual households and private proprietors	37.8	11.2	5.1	5.1	4.1	38.8	196
Company clerks	20.6	0.8	5.3	9.9	3.8	61.8	131
Migrant labors	13.9	1.3	5.9	13.4	2.1	65.1	238
Unemployed men	17.5	1.6	3.2	4.8	0	73.0	63
Emeritus and retired	14.4	.0	1.5	19.1	1.5	67.0	194
housewives	16.4	1.5	.0	10.4	1.5	71.6	67
Total	351	39	62	198	26	854	1487

From the overall conditions that the project area influences the residents' possession of vehicles, the limited personal vehicles and more than half residents have no vehicle provide a good mass base and a market of demanding for energetically developing the public transport in Urumqi. Meanwhile, the public transport can serve most of the disadvantaged group by providing them economical and convenient going out service.



1. Company workers; 2. Farmers; 3. Cadres and clerks of departments and company units;
4. Individual household and owners of private business; 5. Company employees; 6. Non-job people; 7. Migrant workers; 8. Separate or retired staff; 9. housewives.

**Diagram 2-2 Kinds of vehicles vary from occupation to occupation**

## 2.2.4 The conditions of the poor and the vulnerable within the project area

Because it is a road project construction, whether it is a questionnaire survey or a interview survey, in the process of research, more attention was paid to the low-income groups (low-income residents surveyed in higher proportion) and ethnic minority groups, which, to a certain extent, affects statistical result of the questionnaire that the proportion of the people in middle-income and low-income levels are higher than others. But overall, the ethnic differences is not so large, and the psychological feelings of all ethnics are the same.

### (1) Urban poverty

The poverty population in Urumqi mainly includes: 1) Laboring population. In 2009, in Urumqi, 36 thousand enterprises were closed and bankrupted, and enterprises in difficulty, “Wuqigong” received the subsidies, mainly are some jobless and underemployed people, including temporary or long-term unemployed people, employees of enterprises in difficulty, as well as the loser in business. 2) Non-laboring population. Traditionally, they are the elders, the young, the weak, the disabled, and some specially entitled groups who are on welfare of the Ministry of Civil Affairs. By the time of April 2014, the low-insured households in Urumqi were

13037, namely 19837 people. 3) Floating population. This part of the population mainly is the migrant workers who are the natives of Xinjiang, part of the the rural population who lost their land, residing in the towns, and the floating population of rural migrant workers out of Xinjiang. According to the survey of Urumqi Ethnic and Religious Committee, in 2013, the registered floating population was 1100 thousand, of which the Uygur accounted for 40%; most of them came from the four districts and prefectures in the south of Xinjiang. 4) Diseases, an the victims of natural disasters. According to statistics of the Urumqi Civil Affairs Bureau, in 2013, the sickness and disasters caused the poverty to 4821 people in total in the whole city, who were probably not poor before.

## **(2) Rural Poverty**

In 2012, the per capita annual income of rural residents, in Urumqi, was 17563.74 yuan, higher than the average level of Xinjiang Uygur Autonomous Region (13675.26 Yuan)%, but far below the Tacheng Prefecture (33489.3 yuan), the Changji Hui Autonomous Prefecture(34396.55 yuan) and Boulder Tara Mongolia Autonomous Prefecture (32581.28 yuan). But the per capita annual net income of rural residents in Urumqi was 10031.55 yuan, only slightly lower than the Changji Hui Autonomous Prefecture (11470.4 yuan), slightly higher than the Tacheng Prefecture (9895.8 yuan), Boulder Tara Mongolia Autonomous Prefecture (9433.6 yuan), and significantly higher than the average level of Xinjiang Uyghur Autonomous Region (6393.7 yuan), 36.26% per cent higher.

Seen from the annual total expenditure of the rural residents, in 2012 Urumqi (16652.21 yuan) was higher than the average level of Xinjiang Uighur Autonomous Regions (13541.28 yuan) 22.97%; seen from the percentage of the living expenditure in the annual total expenditure, Urumqi (66.8%) was basically identical to the average level of Xinjiang Uighur Autonomous Regions (65.2%). Data above shows that observed from the incomes and spending of the rural residents, Urumqi in general is better than the average level in Xinjiang , generally, Urumqi is better than the average level of Xinjiang, which belongs to the comparatively rich area in Xinjiang Uighur Autonomous Regions (Look at table 2-9).

**Table 2-11 The average income per head and the total outcome of country families in Xinjiang and Urumqi.**

Region	Permanent population	Total income	The annual per capita net income of the whole family	Total annual expenditure	Living expenditure	The proportion of living expenditure in total expenditure
Whole district	4.28	13675.3	6393.7	13541.3	5245.3	0.39
Urumqi	3.65	17563.7	10031.6	16652.2	8398.5	0.5
Turban Prefecture	4.6	12411.1	7105.4	12166.3	6132.7	0.5
Hami Prefecture	3.5	13190.2	8389.5	12424.5	7350.2	0.59
Changji Hui Autonomous Prefecture	3.29	34396.6	11470.4	35972	10410.7	0.29
Ili state subordinate county (city)	4.3	15353.1	7449.7	17834.5	8849.9	0.5
Tacheng Prefecture	3.59	33489.4	9895.8	37593.7	10289.8	0.27
Altay Prefecture	3.93	12196.3	6242.9	11974.7	5670.5	0.47
Boulder Tara Mongolia Autonomous Prefecture	3.53	32581.9	9433.6	35132.8	10410.7	0.3
Bayingolin Mongolia Autonomous Prefecture	3.94	16324.8	9936	1266.9	5846	4.61

Aksu Prefecture	4.3	12483.5	6891.4	12999.2	6579.2	0.51
The Kirgiz Autonomous Prefecture of Kizilsu	5	4812.3	3081.4	4133.1	2311.5	0.56
Kashgar Prefecture	4.69	8559	4708.2	7948.4	3790.7	0.48
Hotan Prefecture	4.25	6490.6	4260	6330	3819.9	0.6

Date source: *The Statistical Yearbook of Xinjiang Uygur Autonomous Region,2013; Urumqi Statistical Yearbook,2013*

In recent years, with the increase of investing money in the construction of forcefully improving the people's livelihood in Urumqi, the concept of “the Livelihood the Priority; the Masses the First; the Grassroots the Significance” has been implemented continuously by the municipality government; meanwhile, the minimum life security level of the residents is developed constantly. By the end of 2013, the pension of retired employees has been improved for 9 years; the minimum wage level of laborers has been adjusted for 11 times to ensure that the level will keep pace with the level of Urumqi economic and social developments, of the people's livelihood construction, and to ensure the basic lives of low-incomers. For the disabled: since 2011, any one who has the registered permanent residence either of he urban or the rural in Urumqi; any one who holds the second generation of the Disabled Certificate in People's Republic of China; any one who has difficulty in participating in the social life and in taking care of himself or herself in terms of the physical, intellectual, mental, visual disability, of whom the disability level is level 2 ( including2) or more severely disabled, can receive the urban and rural subsistence allowances.

The minimum living guarantee of the urban residents: any one who holds the non-agricultural registered permanent residence in the administrative areas in Urumqi, and the per capita income of his or her family members living together and himself or herself is lower than the standard of the minimum living guarantee in Urumqi, can be the one receiving the minimum living guarantee with 360 yuan per person. For the ones who live without the sources of finance, without the ability to work, without legal supporters or dependents, according to the standard of minimum living guarantee, the subsistence allowances should be paid a full grant, while the others can



receive the balance of the subsistence allowances.

The minimum living guarantee of the urban residents: any one of the rural residents, with living difficulty, who holds the certification that the per capita income and the actual living standard are lower than the standard of the local minimum living guarantee, can apply for subsistence allowances. Objects of the rural five guarantees supporting should be incorporated into the rural five guarantees system. In 2014, in the rural, the standard of urban and rural minimum living guarantee is 180 yuan for one person in every month.

Besides the social security for the low-income groups, the urban and rural residents can also receive a variety of social securities, including pension insurance, medical insurance, etc.. For the farmers, the social securities they can gain mainly are the new rural cooperative medical treatment, the new rural endowment insurance, the minimum living guarantee, of which the medical insurance is the most widely popularization one.

The new type of rural social endowment insurance: any resident who reaches to the full 16 years old (except students), not attending the basic old-age insurance for enterprise employees in the city and towns, the endowment insurance provided by the state enterprise, the endowment insurance of personnel flexible obtain employment with the rural household registration, can participate in the new farmers guarantee in the census register seat. The individuals pay the fees, the collective offers the allowance, and the government offers the subsidies. At present, the individual payment standard of the insurances starts from 100 yuan, and the next class is always 100 yuan higher than the former one with 10 classes in total. People who participate in the insurances can choose on themselves, the more they put in, the more they will get. Subsidies will be given to conditional village collective. People who participate in the insurances and pay for it can also gain 30 yuan subsidies for one person yearly, which the the autonomous region offer 60% subsidies, of which the rest is borne by Urumqi. As for the rural groups that have difficulty in paying for their insurances such as the severe disabled, Urumqi government will offer appropriate subsidies in terms of the minimum standards for endowment insurance premium they have paid. As for people who hold the first or second level severe disability certificates, according to the minimum standard of individual payment can receive 30 yuan subsidy. For those severely disabled people who have lose labor ability completely, according to the minimum standard of individual payment can receive a full grant of 100 yuan.

Since 2011, *The Help Methods for the Urban and Rural Residents in Difficulty in Urumqi (Trail Implementation)*, *The help Methods of Winter Warm for the Urban and Rural Residents in Difficulty in Urumqi*, *The Temporary Methods for Urban and Rural Masses in Difficulty in Urumqi*, etc. have been enacted sequentially, which is a series of policies aimed at giving medicaid in a certain standards to the rural households receiving the five guarantees, urban and rural low-income households receiving the minimum living guarantee, low marginal households and other urban and rural residents with special needs. By the end of 2012, in total, the urban and rural

medical assistance helped more than 200000 people, the payment of medical aid accumulated to 84.736 million yuan.

**Table 2-12 The security minimum wage of the city residents of Urumqi in 2012.**

The administrative region	The population of urban residents minimum subsistence allowances	The classification of social security situation		The classification of the low-income people	
		The disabled	The aged	The adults	The nonages
The Tianshan district	5362	1400	985	999	1350
The Saybagh district	4964	1481	620	3046	1267
The high-tech zone(new urban area)	2852	1078	303	1800	709
The Shuimogou district	2751	631	312	1619	799
The economic development zone(Toutuhe district)	1074	348	99	659	284
The Midong district	1873	391	209	1094	564
The whole city	19764	5448	2641	11703	5257

Date source: *Urumqi Statistical Yearbook, 2013*

At the process of the field survey in community, each teams paid particular attention to collecting relative data of low-income and minority groups, hoping to have a deep understanding about the present life situation and the traffic condition of those people. Each community had a certain number of poverty-stricken people. The researchers tried their best to collect the data of poverty-stricken people from all communities, but for some reasons, some communities failed to provide the relative data. Form the existing statistical data, Tianshan district generally has high proportion of ethnic minority population, especially for south community of Tianshan district. For example, Santunbei community, Xinhua South Road east community and Heba Lane community, etc. From low-income number in total community has the highest

percentage of the total number of the low-income people in the top three monuments, accounted for 3.13%,2.64%and 1.89%of the total population. Ergang community belongs to the Kazi Bay district management committee in Midong District, founded in 2001, which was set up due to the Urumqi Second Steel Plant bankruptcy. The income level of residents was generally not high, for it was a bankrupt enterprise. The “4050” phenomenon, namely employment pressure, always existed. As a result, there were a large number of people receiving the minimum living guarantee. Both Santunbei community and Heba Lane community belong to the sub-district office in victory road of Tianshan District. There was a large number of people from ethnic minority. Because of the restriction of languages, skills and lifestyles, they confronted more difficulties than Han nationality when they tried to find a job and integrate into the mainstream of our society. Consequently there were a lot of people receiving the minimum living guarantee. The result of our survey was consistent with the condition of the residents minimum living guarantee in Urumqi in 2012. Tianshan District was the highest place in people receiving the MLG terms. Generally, the registered disabled residents in the community all have the Disabled Certificate in People's Republic of China.

Following is a excerpt on the current conditions of the disadvantaged groups' incomes and their ways of going out.

Yulan Chen, a woman of 44 years old, from Han nationality, has a degree of high school. She suffers from polio. She is a clerk of Yanwo branch which is a part of Road Management Bureau in Urumqi with a wage over 3000 yuan a month. Her family own a car, so she seldom takes a bus when she goes out. However, if her families are not beside her, she will choose to take a bus, for she does not good at driving. —— the First Group of Transcribed Interviews, 3/20/2014.

Reonaph Abulimity, a woman of 40 years old, from Uygur is a sanitation worker in Xindabei community, which is a public-service job. She has been working for 7 years with a current wage of 1400 yuan monthly. There are pension insurance, medical care insurance, and housing accumulation fund for her. What's more, she also get subsidized breakfasts for 3.5 yuan every day. She has a daughter and three sons, and the 21-year-old daughter has already got married. The eldest son, 18 years old, goes to the college in Aksu, majoring in medicine; the second son is attending a technical secondary school and lives with his grandmother, namely her mother. And the youngest son is still in primary school. Her parents-in-laws lives in southern Xinjiang; both of them are over 90 years old, of which are needed to be taken care. There is a great pressure to supporting the old and the young at the same time. But considering that the job provides with the three insurances and fund, pensions, she has been holding on. In the past, her wage was very law, which from the beginning was only 500 yuan and then up to 830 yuan month after three years; and raised to 1050 yuan after another year; last year it increased to 1400 yuan. Working from dawn to nights is indeed very hard. In particular, I hope that the government can solve our problems in travel cards. We have 2 commutes each day, which costs a lot of money. Sometimes,

for the purpose of saving money, we do not go home and we eat the dried foods. It is difficult for us to make money, and our kids are obligated to receive education from schools. We are desperate for money. —— the First Group of Transcribed Interviews, 3/23/2014.

## 2.2.5 The feminist group within the project area

The female population accounts for 18.17% of the total population of Urumqi, separating in different districts in the city, with a balanced female-to-male ratio in every district (Look at Table 2-14).

**Table 2-13 The gender composition within the project area in 2012.**

Administrative Regions	Summation	Male	Percentage	Female	Percentage
Tianshan District	576246	289959	50.32	286287	49.68
Saybagh District	537548	273209	50.83	264339	49.17
High-tech District (new urban district)	556204	294903	53.02	261301	46.98
Economic Development District(Toutunhe District)	230230	122815	53.34	107415	46.66
Shuimogou District	301441	161095	53.44	140346	46.56
Midong District	274332	141844	51.7	132488	48.3
Whole city	2578033	1336110	51.83	1241923	48.17

Data source: *Urumqi Statistical Yearbook, 2013*

Editorial household survey data show that most people in the project areas are in the degree of junior high school or above, of which the rate of men with higher education (including vocational college and university and above) is slightly higher than that of women. For example, the proportion of female with junior college or above degree of education (33.2%) is less than that of male (37.6%); the proportion of male with junior high or senior high educational degree (50.9%) and that of female (50.4%) is much the same; and the proportion of illiterate male (2.2%) and that of

female (2.0%) is nearly the same (Look at Table 4-1).

**Table 2-14 The statistics of the sample's education level by gender.**

Educational Level	Male(%)	Female(%)
Bachelor Degree or Above	14.8	14.0
Junior college	22.8	29.2
Senior High(Technical secondary school , vocational school , technical school)	27.8	31.2
Junior High	23.1	19.2
Primary School	9.3	4.4
Illiterate and Semi-literate	2.2	2.0

Data source: Survey Data of Editorial Household

The results of editorial household survey along with focus group discussion and the seminar participated by all levels of institutions displayed that women would benefit from the project. The project would provide certain technical and non-technical job opportunities for the local labor force in execution and operation period; thereby it would increase the employment of population in the project areas in short time. Implementing agencies will ensure that 30% of these jobs provided to vulnerable groups including women and poverty groups.

After the improvement of transportation environment, the amount of stream of people and the traffic are increased, which may provide more opportunities for women to find jobs, increase their contribution to the family income, improve their family economic status and the economic income of the family. Family health of the minority usually undertook by the woman, and the Muslim family pays great attention to the family health, so the implementation of the project will reduce the dust and noise along the road, and reduce the housework intensity of women.

The project will benefit the women, but if lack of gender sensitivity in the process of design, implementation, and management, there is also potential risk of reducing or excluding the benefit of women getting from the project . Major risks are showed in the following aspects:

The needs of women are neglected.

Influenced by the traditional culture and customs of Uygur nationality and Hui nationality, women in Uygur and Hui nationality usually married at the young age, so

Uygur and Hui nationality pay little attention to women's education. People (including women themselves) tend to think that women's quality is not high, participation in major affairs within the family or public affairs ability is not high, which is caused by the above condition. This understanding will usually cause the neglect of women's needs and suggestions during the design, implementation and management of the project. For example, women's demands are neglected in the project design; in the payment of compensation, some women can't sign up for land acquisition compensation because they are not regarded as household, ; during the construction of the project, women's exclusion or rights can't be protected.

Women are excluded from skills training and traffic safety publicity .

The percentage of women of Uyghur and Hui in the project area who go out for a job is low, but they can stay at home and engage in arts and crafts production. And the fact shows that these earnings have become a major part of total income in some families. Therefore women also should be important target groups of skills training. However, due to: firstly, women of Uyghur and Hui in the project area undertake major duties to take care of other family members and do housework; secondly, most of these women have received little education and their training capacities are limited; thirdly, some women can't understand Mandarin. Because of above factors, if some of these skills training do not take women's needs into account in time, location, and the way of training, which may cause some women can't get skills training. Meanwhile, owing to the same reason, women can easily be neglected group in transportation safety publicity and training.

Security awareness is not strong If some women in the project area whose safety awareness is not strong, and fail to care for their children, there will be some safety concerns.

## **2.2.6 The relatively concentrated minority within the project area**

The construction of the improving project II on Urumqi urban traffic covers wide areas. Except Urumqi City and Daban area, it almost crosses the main urban in Urumqi, especially the Tianshan District, Saybagh District and Midong District where the majority are the minority. The project involves 62 sub-district offices, 112 administrative villages and 666 communities/village committees. In 2012, these areas approximately have a population of 2.4758 million. Among them, the Han nationality approximately has a population of 1.8318 million, accounting for 73.98%; the Uyghur nationality has a population of 32900, accounting for 13.3%; the Hui nationality has a population of 231600, accounting for 9.35%. (see table 2-3)

**Table 2-15**

**Different nations within the direct-influenced area of the project in 2012.**

**(unit; ten thousand,%)**

Administrative regions	Administrative village/community/village committee	Total population	The Han Nationality		Uyghur Nationality		The Hui nationality		Kazak Nationality		Others	
			population	Proportion	Population	Proportion	Population	Proportion	Population	Proportion	Population	Proportion
Tianshan District	193 in total: 14 streets , 178 communities/village committees、1 village	57.62	35.76	62.1	14.83	25.74	4.36	7.57	1.4	2.43	1.27	2.20
Saybagh District	162 in total: 12 streets , 150 communities/village committees	53.75	41.74	77.7	6.37	11.07	3.71	6.90	0.85	1.58	1.08	2.01
High-tech District (XinShi District)	163 in total: 13 streets , 23 villages 、 127 communities/village committees	55.62	44.09	79.3	5.21	9.37	4.55	8.18	0.74	1.33	1.03	1.85
Economic developing area (Toutunhe District)	79 in total: 9 streets , 1 village 、 69 communities/village committees	23.02	17.84	77.5	2.47	10.73	2.2	9.56	0.18	0.78	0.33	1.43
Shuimogou District	103 in total: 8 streets , 89 communities/village committees、6 villages	30.14	25.49	84.6	2.9	9.62	1.06	3.52	0.3	1.00	0.39	1.29

Midong District	140 in total: 6 streets , 81 villages 、 53 communities/village committees	27.43	18.26	66.6	1.14	4.16	7.28	26.54	0.45	1.64	0.3	1.09
Total	840 in total: 62 streets, 112 villages , 666 communities/village committees	247.58	183.18	73.98	32.92	13.30	23.16	9.35	3.92	1.58	4.4	1.78

Data source: Urumqi Yearbook(2013)      Town/Street statistical statement

In the result of history, a spatial pattern of the living distribution of minority in Urumqi have been formed with the core of Erdaoqiao .Tianshan District is the place where have the largest minority population in Urumqi. There are 44 nations .Due to the difference of religion culture ,social class differentiation, economic condition and other factors, the phenomenon of the differentiation of national living space exists among nations. However ,the pattern of the majority scattered and the minority gathered still has not changed. In the 6 districts which were involved in the project at present, the proportion of the Uyghur people is higher in Tianshan District, Saybagh District and Economic developing area(Toutunhe District) ;the proportion of the Han nationality people is higher in the High-tech District(XinShi City) and Shuimogou District; the proportion of Hui nationality people is higher Midong District(details are given in table2-3,2-4).



**Table2-16 The general population situation in every community and committee within the project area.**

Area	community/village committee	population		proportion of Minority population(%)	Floating population		Number of the low-income family		The disabled (the number of people)	Religious venue(seat)
		family	The number of people		family	The number of people	family	The number of people		
Tianshan area	Santunbei community	1532	4556	82.8	461	1672	51	86	66	1
	East community of Xinhua south road	1054	2959	47.8	218	719	22	34	27	0
	Shengli road community	1723	5361	18.13	388	989	32	52	46	0
	Heba lane community	1396	3638	82.77	543	1260	45	96	/	1
	Fushou lane community	1366	4975	/	653	1913	12	14	43	0
	The red flag community	1731	5205	18.08	479	1450	16	22	49	1
	West construction road community	998	1689	6.04	96	209	5	8	21	0
	West heba community	1314	2538	18.4	570	1065	8	8	52	2

Saybagh district	Four bridge community	1886	5287	34.33	387	1081	/	36	61	0
	Lanxiu garden community	837	2958	10.85	/	175	17	17	30	0
	New north community	1663	3509	/	220	/	/	/	/	0
	The museum community	1374	3050	30	148	272	20	29	42	0
	Jindi community	3435	13477	5	171	550	32	35	46	0
Gaoxin district(Xinshi district)	Jinshan community	859	1378	8.85	139	292	5	8	/	0
	Jinjiang community	3801	8089	4.2	234	455	1	1	64	0
	Altay community	2511	5337	4.8	229	518	22	28	52	0
	The east community of xibajiahu	2768	7000	4.5	/	/	11	12	19	0
	Tianshan garden community	2305	5198	6.77	208	488	/	/	/	0
	Xibajiahu community	3221	8305	13.23	427	1013	/	55	84	1
	Tianjin road community	4500	9312	9.89	594	1140	19	21	63	0
	Changqing community	4558	10243	12.28	212	520	4	4	16	0
	New leap	835	1424	10.5	606	1035	1	1	3	0

Economic development zone(Toutunhe)	community									
	The northern tianjin road community	4558	10243	1.87	212	520	4	4	16	0
	Xinao community	4889	9450	21	2652	4419	/	/	/	1
	Emerging community	2217	7515	7	37	1445	14	18	45	0
	Spider mountain community	1250	5471	12.8	1555	3121	10	12	24	2
	South decorated gateway community	3990	7921	7.7	3413	6107	15	19	22	0
	Yingbin bridge community	4077	8741	5.3	412	808	2	7	28	0
	Huangshan street community	244	594	3.87	46	120	0	0	0	0
	New leap community	835	1424	10.5	606	1035	1	1	3	0
	Dafeng community	232	951	/	30	72	/	/	/	0
Shuimo gou district										
	Yulin community	2235	5518	6.09	223	1028	36	54	16	0
	Jiayuan community	3097	6673	2	/	/	/	/	/	0
Midong district										
	Limin community	3842	9590	2.29	602	1683	5	6	3	0

Ergang community	3905	9767	7.85	608	1684	204	306	/	0
Xinhua community	2892	7693	/	499	1206	/	/	/	0
Bafang community	2474	6789	/	139	548	37	47	70	1
Anju community	2491	7862	/	126	533	/	/	/	/

Data source: according to the general situation, conclusion and report material of each Community in the editorial report

## 2.3 The identification of the major shareholders

This project is the improvement project of urban transportation, the government clearly puts forward to set up an urban traffic system which is led by government ,orderly, reliable ,and guaranteed in the file of "the outline of its 12th Five-Year Plan for economic and social development", intend to offer efficient, safe, convenient and cosy public transport services to citizens ,and in this way citizens are willing to take buses as much as possible.

The goal of the project: improving the whole level of BRT network service and urban traffic management ,promoting the development of green low-carbon "bus city" by setting up the full integrated public traffic corridor, with the support of smart traffic system and Institutional capacity construction. From the target we can see, the project will perfect the whole traffic condition of Urumqi ,and improve the efficiency of residents' traveling, short the time of traveling, provide comfortable, fast transit trip ,at the same time ,integrate the traffic information of the whole city, establish good quality, share service platform, offer citizens an real-time traffic information service. Moreover, the project plays a beneficial role in increasing the development opportunity of residents, perfecting the living environment, improving the quality of life. Therefore, the government of Urumqi is the main pusher and supporter of the project, which arouses the power and initiative of varied departments that related with the project, the government hopes that it can improve the urban traffic environment, perfect the quality of living ,establish "a resource-saving and environmental-friendly society", strongly improve the image of western cities, create the favorable external environment and traffic conditions for improving the development of various industry in Urumqi and promote the economic development and prosperity of urban and region.

The urban traffic renovation project is pushed directly by municipal government ,has a large construction scale and involves many citizens .We can say that all citizens can benefit from it. In specific, the residents who working or living the near area along the road, or frequently using the streets will benefit more. The construction of BRT needs many matched overpasses and underpasses to make people safe in the places where people are likely to gather, such as near habitations, schools, mosques, hospitals; the construction of information platform and commanding center will avoid information asymmetry, optimize the database ,reduce the redundant construction, save taxpayers' money, and at the same time, expand the coverage of traffic information as possible as they can; by constructing public traffic first terminal and stop protect field to perfect the environment of working place for drivers and passengers and staff and increase the security of driving.

However ,at the same time, it is inevitable that the events of land acquisition and house demolition would happen. It may influence the ways of living and producing; and the implementation process of the project may cause inconvenience to urban traffic and resident's trip, therefore, identifying the main affected people of the project is the premise of reducing bad effects which the project may cause.

Generally speaking ,the project has positive and negative effects, short-term and long- term effects.

The major shareholders of project can be divided into following groups:

- Residents who live in the project area
- The workers of the store and company along the project line
- People who live nearby along the project line and are not convenient to go and out
- Job holders of bus line
- Involved companies with its individuals about land requisition and demolishing in project area
- Other owners of social cars
- Urumqi municipal government and relevant departments

### **2.3.1 For residents who live within the project area**

Those residents who live in the project area are influenced by the project directly .The positive effects of the project stand out from long-term view, but there are many negatives in short-term. This project has a wide influenced area. The construction of three BRT lines has involved the construction of several important main streets and crowded areas like road Xinhua south ,sections of road big and small West Gate, Altay road, Kashi road, Midong avenue and Gumudi and so on .Construction time is usually concentrated on April to October which limited by

the natural climate in Urumqi. But it has limited effects on residents because the project can be applied into section construction and the work-period of every section is short.

Effects on manufacture and life: Until now, generally speaking ,there are many bus lines in the transport system of Urumqi and the coverage is wide. But some lines are still rely on several buses. The construction of BRT lines needs to excavate the road surface, build platform and relevant matching facility. Some sections of roads will half closed for construction ,but some narrow streets may totally closed ,which will have some influences on residents' travel. Especially ,some constructions on main road may worse the traffic jams in peak hour and increase the travel difficulties. To some extent it will affect residents' normal manufacture and life who live in project area .

Effects on environment: Some environment problems ,like noise, floating dust ,are inevitable during the construction of road , platform and relevant matching facility. Civilians also concern other issues such as the construction of first and the last stations that partly involved land requisition and demolishing ,the construction of stop protect field as well as the sewage, waste gas and noise after it is applied.

Effects on safety: Construction machinery will driving around during road construction and relative pipe network wiring will extend construction period. Therefore, the nearby residents ,especially the children, old people and disables ,should pay more attention to their safety.

### **2.3.2 For staff of the shops and companies along as well as near the project area**

In the project and the nearby shops , enterprise and related personnel will be affected by the project.

Economic impact: the employment and income of the people mentioned above along the project may be affected ,due to shops, enterprise, housing, land and other land acquisition, demolition. For example,if one rents shops on both sides of the streets of south lake north road in the northern suburb bus station,shops is the basic source of life to the landlord and the tenant .

Environmental impact: the construction along the project will be facing the same environmental problems as the project area residents.

Sensitive spot effect:There is a large business supermarket, bus station, general hospital, mosques and schools, these sensitive spot has had a huge traffic every day, the construction of the projects will bring inconvenience to students, patients, shoppers going out and Muslim people go to the mosque.

### **2.3.3 For the public transport company and other bus companies**

Urumqi city bus lines, there are two company, bus company, treasures company, Haotian company mainly undertake suburbs passenger services, which does not involve the city bus lines.

Bus company: now, BRT operation company escrow by bus group, line can combination, optimization and the placement of the people, which can adjust at the bus group inside, but the line 7, as well as the other 3 lines are all faced with the problem of lacking of drivers. Overall, nearly two years BRT driver training work is advancing slowly, few drivers who are eligible and can participate in the training. Treasures bus: the treasure bus company restructuring in 2006, out of the bus company has more than 3100 employees in China. After the completion of three BRT lines, compression to treasure bus company market share is very big, in line BRT4 alone has more than 10 lines belong to treasure bus company. If the employees stay, bus operating income falling, the company will not work normally. BRT1 line run in 2011 has replaced the 2 bus which belongs to treasure bus company, however, there was no economic compensation to the bus company, when the line displacement proposed, also did not meet the demand of replacement lines of treasure bus company, so that the treasure bus company suffered great losses.

Midong district bus company: meters east bus company now has 227 vehicles, but meters east has 24 lines, the main 1, 2, 3, 4, 5, 6, and 613 were private bus, do not belong to the normal bus company. BRT6 line mainly replace the route 613. 613 lines, a total of 107 vehicles operation mainly linked in siping and ChangShun company, those two enterprises are private enterprises, family management, mainly for transport and vehicle detection. By 2014, siping company and ChangShun company has four-year right of management. The company charges the operative vehicles ten thousand yuan every year. Tickets price of 613 is 2.5 yuan single time, once the line BRT6 opening, 613 will lose their competitiveness.

### **2.3.4 For the bus line practitioner(including the settlement of the drivers, dispatchers, traffic wardens and the superfluous drivers.)**

The employment problems of drivers and dispatchers after project completion and route integration: In the BRT operation, the overlapping bus routes will be cancelled or be merged or be converted to other lines. From the historical experience, the opening of BRT may reduce the number and scheduling of drivers, some drivers and dispatchers would face layoffs crisis. Older workers could be limited in job transfer and re-employment, which would result in a decline in their income and influence their life even subsistence seriously.

In Midong District, because buses are private-owned, some drivers and conductors run buses in family form, or two or three families pool money to buy cars. They mainly make a living by driving. If BRT and private route are operated at the same time, private route incomes will be sharply reduced, their living standards will naturally decline.

Of course, part of drivers who transfer to BRT drivers through various training after opening of BRT raise the income level and improve their work environment.

### **2.3.5 For the companies and individuals involved in the land requisition and houses demolition**

The land requisition and demolition in this area mainly focus on six stations, consisting of two new bus stations, two bus depots and two large hub transfer centers. Although this project only revolved a small scale of land requisition and demolition, the affected group is more complex, the mainly affected objects including farmers, residents, merchants and enterprises. Because of this project, Urumqi whole public transport is improved, which benefit urban development while improving the quality of life of ordinary residents, most of the affected people have a full understanding and affirmation to the positive impact of the project and expressed support to the project implementation. Overall, enterprises and individuals involved in the demolition approve the project, but the affected people may have changes in living and working environment and other aspects because of the project implementation, the employment and income of some shops and enterprises may be influenced by the land acquisition and relocation.

### **2.3.6 For the owners of the other external vehicles(including the owners of private cars and taxis.)**

BRT construction also has influence to other external vehicles, which are mainly reflected in the following several problems:

**Traffic-clogged problem:** historical experience shows that after BRT line opened, external traffic road turned narrow and section saturation degree is too high. For example, after the opening of BRT1 line, although the absolute number of traffic in most of its sections has a considerable decrease, its section saturation degree is very high. According the statistics data, the route saturation degree above 0.6 accounts for 80% and that above 0.7 accounts for 60%, almost all sections are crowded.<sup>1</sup> Its ultimate reason lies in that the BRT opening led to lower external vehicle capacity, although part of external vehicle changed travelling routes (which caused decline of road traffic flow), the vehicle queue length increased rather than decreased , resulting

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<sup>1</sup> Assessment Report on Urumqi Bus Rapid Transit System. Page 9 Table 2-5.



in increased congestion.

Public transportation influence on taxi: There are 12188 taxis (including 10647 vehicles in urban operations, 1541 vehicles in the Midong district and Toutunhe district, and Daban city ).Now, ten thousand people have 34 cabs, 14 cars higher than the national standard. The taxi fares are up to 10 Yuan, the number of taxis continues to decline, the completion of the project will further influence the taxi business. When the citizens need to take taxis in the rush hours, the taxi practitioners are driving in the suburbs and other regional areas. Because it's very crowded in the downtown, so the taxi drivers can't earn money. While after the peak hours, the public will choose bus travel, the use of taxis will accordingly reduce. Urumqi bus system has been constantly improved, and finally it will certainly affect taxi business.

### **2.3.7 For the city government and the relevant municipal departments of Urumqi.**

**Urumqi city government:** Urumqi city government is the main promoter of the project, the Twelfth Five-year Development Outline of Urumqi clearly put forward the construction of urban rail transit on urban traffic, BRT and conventional bus, taxi system coordinated development of comprehensive transportation system integration bus, in order to improve the service quality, increase the speed of delivery, attract more people choose the way to the bus travel and establish the sustainable development of environment friendly, low carbon transport system. The planning objectives constitute the Urumqi city traffic improvement projects II planning basis. Urumqi city government in planning and policy support sustainable green bus integrated transportation system and green slow traffic construction, put forward the construction of "appropriate industry habitable, ecological good, clean air, vibrant modern civilized cities. At the same time the government put forward two themes of development and people's livelihood, to build a strong economic city in western China; develop Urumqi city to a central city in western China, and the central province of modern international trade center, multi-ethnic, harmonious and livable city, west Tianshan oasis ecological garden city and integrated transport hub.

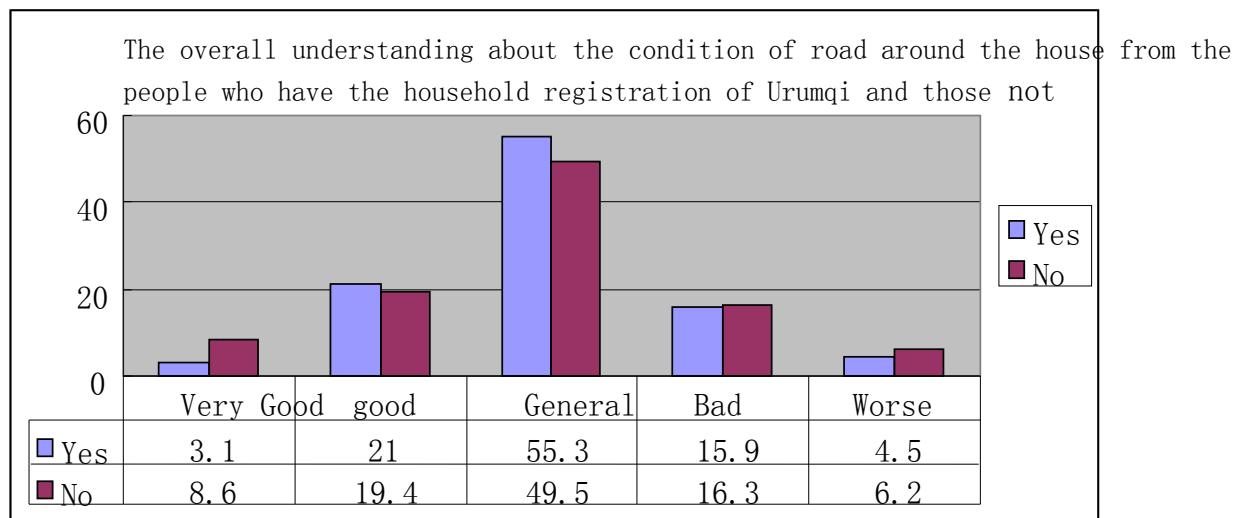
**Relevant municipal departments:** The roads building not only involves the urban construction department, planning department, and relevant municipal departments to participate in the construction of underground pipe line and put it into use after the completion of the supporting facilities construction of the project. So we put a lot of values on the interview of relevant municipal departments, including the Urumqi Water Bureau, Urumqi Water Industry Group, Urumqi Heating Power Company, Urumqi Gas Company, Urumqi Telecom Company, Urumqi Transport System Management Office and other units, consulted their suggestions and opinions for the project, hoping to perfect the social assessment report more comprehensively.

### 3. The affected people's views of the project

#### 3.1 Views of the stakeholders on the current city traffic conditions in Urumqi.

##### 3.1.1 Views of the community residents towards the road condition and public transportation in Urumqi

In the questionnaire survey, there are 21.1% of residents who do not have household registration of Urumqi. They have different opinions about the condition of road around the house from the residents who have the household registration of Urumqi, but the difference is not obvious. Non-residents have a higher evaluation than residents, it reflects that the non-residents are easier to be satisfied. 8.6% of non-residents think the condition of road around the house are good, but only 3.1% of residents have the same idea.



**Diagram 3-1 the overall understanding about the condition of road around the house from the people who have the household registration of Urumqi and those not (Numbers as a percentage)**

From the general data analysis, the urban residents of Urumqi have better evaluation of the general condition of traffic and bus service, the number of people thinking the traffic in the "general" and above accounted for 79.1% of the total sample, the number of people believing the bus service in the "general" and above accounted for 91.51% of the total sample. They think more highly of the bus service than the overall understanding about traffic. As it can be seen from the interview, most

residents in Urumqi affirm the traffic improvement and bus service.

**Table 3-1 The residents' assessment on the overall traffic condition and the public transportation service.**

	Very good	good	general	bad	worse	sample
General traffic condition	4.3	20.4	54.4	16.5	4.2	1542
General bus service	5.8	29.2	56.5	7.0	1.4	1542

From the distribution of large numbers, different residents in different ages all give their credit for the public bus service of Urumqi city. From the different age groups, the older they are, the higher recognition of bus service they give. The number of 40 to 50- year-old people think bus service is "very good" and "good", a total of 32.3%. the number of 51 to 60- year-old people accounts for 44.1%. the number of 61-year-old and above, up to 58.5%.

**Table3-2 The analysis of the residents' attitudes towards Urumqi's public transportation service at different ages.(%)**

	Very good	good	common	bad	Very bad	Samples (numbers)
Under 20 years old	3.6	25	71.4	0	0	28
21-30 years old	6.5	23.3	54.4	11.7	4.2	309
31-40 years old	5.7	23.2	63.8	7	0.2	401
41-50 years old	4.8	27.5	61	5.3	1.4	433
51-60 years old	4.8	39.3	48.9	6.1	0.9	229
Over 61 years old	9.9	48.6	36.6	4.9	0	142
Total	5.8	29.2	56.5	7	1.4	1542

**Bahatiya.tuerxun, a 46-year-old man from Uyghur nationality, is a sanitation worker in Siping Road community. He said,** Bus Rapid Transit (BRT) is a line for special use and has separate lanes, and has no mutual influence with other lanes. So there are no traffic jams. It is really convenient. It's also very clean in the bus. I can often see the workers cleaning windows when I am on bus. They provide a greenhouse for us to rest and the serving attitudes of the staffs are also very friendly. Besides, they are very friendly to us when we ask directions.

--A transcript of the interview from the third group on March 20, 2014

From occupational classification, we observed the valuation to general traffic condition from different crowds in Urumqi. The number of people who think the traffic condition is just very common accounting for 54.5% of the samples, and their general cognition of traffic represents that of the most staffs. There is a higher proportion of farmers and retired people who think general traffic condition is "very good" or "good", both has surpassed the occupational total quantity 40%. The traffic condition is lower for company employees, unemployed and cadres and clerks from institutions and enterprises. They chose "bad" or "very bad", respectively accounting for 32.8%, 28.6% and 26.2% of the samples. The retired people think the traffic condition is very good, and that has the ratio of 9.8%. And the cadres and clerks have the idea of very bad traffic condition, that accounts for 6.3% of the samples. But there are still many people who support the general traffic condition is good in Urumqi.

**Table 3-3 The analysis of different job-engaged people's evaluation on Urumqi's overall traffic condition (%)**

	Very good	good	Just So-so	Bad	Very Bad	Sample Volume(pcs)
Workers	7.9	19.8	54	12.4	5.9	202
Peasants	8.5	35.1	41.5	13.8	1.1	94
Enterprises 'cadres and 'staff	2	18.2	53.6	19.9	6.3	302
The self-employed and owners of private enterprises	2.6	16.8	63.3	15.3	2	196
Company employee	3.1	13	51.1	29	3.8	131
Migrant workers	1.7	16.8	62.2	15.5	3.8	238

Unemployed people	3.2	19	49.2	23.8	4.8	63
Retirees	9.8	31.4	44.8	10.8	3.1	194
Housewives	3	20.9	62.7	11.9	1.5	67
Students	0	22.2	61.1	16.7	0	18
Else	2.7	16.2	56.8	13.5	10.8	37
Total	4.3	20.4	54.5	16.5	4.2	1542

**Chen Chiu, male, Han nationality, 59 years old, high school, retired workers:**

The traffic situation in Urumqi now is much better and much more convenient than before. The viaduct has already been constructed here. For example, from here to the railway station, just need a few minutes through the outer ring expressway rather than more than an hour through the original route. It is also very convenient to go to the airport. Urumqi traffic environment has been constantly improved. Nearby transportation environment are very well. It is very convenient to go anywhere by bus. —on March 22, 2014, the first group.

Apart from the positive attitudes to the overall traffic situation, meanwhile, some residents believe the traffic operation in Urumqi also has many problems. Respondents' views on traffic problems in the city of Urumqi characterized by traffic jams, the proportion in the first place and up to 75.6%, followed by bus is not convenient, the third is the pedestrian crossing is not convenient, the fourth for poor road conditions. The other problems including the lack of bike lanes, traffic management issues, as well as the setting of traffic signs are also having the proportion of different opinions, but the proportion is limited.

**Table 3-4 The sequencing of current problems existed in Urumqi's city traffic(%)**

problems	Traffic jams	Inconvenient Buses	No bike lanes	Low levels of traffic management	Unreasonable traffic sign setting	Pedestrians crossing the road is not convenient	Poor road conditions	others	Sample volumes
first	75.6	10.1	4.1	2.3	1.1	3.4	3	0.3	1537
second	6.8	35.9	15.3	11.9	5.4	11.5	6.7	0.4	1449
third	3.7	7.5	14.9	11.2	6.5	24.6	17.6	1.4	1347

**Zhang Yan, 35 years old, female, a postgraduate, an executive of the public institution and lives in Altay Road community Century Garden:** the traffic condition in Wu District is not good enough, every road is crowded, there is rarely no traffic jams, even small alleys are crowded. Setting too much traffic lights is also one reason causing traffic jams. For example, there are three traffic lights from Urumqi County Hospital to timber mill; the traffic light besides Railway Bureau lasts for a long time, causing serious traffic jams. —— First interview transcript on March 17, 2014.

In New Oil Village sub-district office Altay Road community forum ( participants consist of nine people , among them are 3 women and one people from Hui nationality), the research group discussed with the local residents in PRA method. These residents all come from Century Garden neighborhood which lies in the Spider Mountain, they are all railway retired workers whose income is about 3000 Yuan. Participants sequenced the going out difficulties in PRA method, the details are shown in Table3-5. According to the sequence, residents in the community considered that the bus passing to the residential areas is the most urgent problems, the primary reasons are as follows: to begin with, the alley slope in Spider Mountain is steep, No.532 bus is no longer into alley because of the poor quality of the road, so residents need a one-kilometer walk to Altay Road to take a bus. It's very difficult for the old to go out, especially in winter's cold weather and slippery roads. The second is repairing underpass. Local residents reflected that there is an underpass beside Altay Road, but it wasnot fully, many people are unwilling to go, because there is no carport, no mark in the underpass. The lighting facility there is poor, some people cannot see it, and many people go there for a toilet so that it is very dirty inside. Without carport, the underpass would be submerged as soon as it rains so that people cannot get through it for several days. Then is the entertainment places newly constructed for the aged people, along with the dismantle of garage, which under an wood plant overpass occupying a very large area and causing inconvenient crossing, difficult crossing and discommodious trip, which reflected series of problems that local residents have difficulty to go out. in addition, the buses never go into the community and underpass cannot play its role.

**Table 3-5 the sequencing of residents' difficulty of going out in Altay Road Community Public Forum.**

Problems:	Inconvenient trip	Difficult crossing	Uptown bus passing	Underpass recondition	Garage dismantle	Entertainment place for the old
	○	○○	○○○○○○	○○○○○	○○○	○○○○
Votes	1	2	6	5	3	4
Ranking	6	5	1	2	4	3

Note: the PRA method is used this time, the travel difficulty problems are put forward and ranked by forum participants. The most difficult problem gets the most votes.

In seminar, everyone show their support to the BRT construction, they regard it as local residents' gospel. For the possible impact of construction, they express understanding that difficulties are temporary and repairing roads is in line with the long-term interests. Meanwhile, residents in Altay Road community hope that the project implementation can help them improve the current traffic situation and the living environment around. The PRA research group asked residents to sort these problems that they hope to be solved, in this way, they suggest: first and foremost, build a senior activity center. There are many communities on the Spider Mountain, because developers used land all to the house building which leads to the decrease of senior activity centers, and there is no one to manage the bench and fitness facilities, therefore, residents called upon all social parties to pay more attention to the lives of the elderly and entertainment facilities; secondly, broaden roads and fix pavements, we hope that roadways are open to buses, take a shed on the underground channel, set signs to improve the underground lighting facilities, and engage in environment management; thirdly, strengthen the medical clinic qualifications of community; forth, focus on ecological environment and pollution governance. There are some other things should be done, such as helping the vulnerable groups, saving the money of taxpayers, and planning the project more scientifically. (See Table 2 - 25).

**Table 3-6 The sorting table of problems that people in the Altay road community want to solve through the symposium. (PRA figure)**

Sequence	Problems need to be solved		votes	Sort
1	The government should have long-term plans (30—50 years) .	○	1	7
2	Money should be used in place.	○○	2	6
3	Concerns about resident's life in the edge of the area.	○○○	3	5
4	Focus on ecological environment and pollution governance.	○○○○	4	4
5	Broaden road and fix pavement.	○○○○○○	6	2
6	Build elderly activity center.	○○○○○○○	7	1
7	Strengthen the medical clinic qualifications of community.	○○○○○	5	3

Note: using the PRA method this time, people who participate in the discussion put forward their problems about travel and sort these problems, put the most votes on the most difficult one.

The research group was warmly welcomed by residents along the BRT6 line and its branch line when they did investigation over there. At the symposium in the community, people from all trades and professions said that the traffic planning was scientifically tested by the government in design, the east to west line in the city will vigorously improve the development energy and logistics transport; the extension of BRT lines to Miquan district not only can effectively solve travel problems of people along lines, but promote local economic development and bring vast dividends to population mobility.

With the high-speed rail station being opened to public use and many residential occupancy, the traffic status in the west of the city will be more and more important, the east of the city has developed, but now there is no direct bus route from the east to west, only transfer twice or three times to get to, so, it is necessary to build BRT6 branch line. We can see from the intensive level of the community that the passenger traffic of BRT6 branch line will be very large in the future. —March 22, 2014 – the third groups discussion transcripts.

In the research, all residents and communities in Midong district are happy for the start working and construction of BRT6 line. Due to the travel by bus in the past is relatively inconvenient, the diversity of travel for people of communities along the Midong southeast road is of great significance, and it is also a big step to strengthen the contact after the merger of Midong district and Urumqi. It is also an important measure to enhance the contact after the merging of the Midong District and Urumqi County. However, after research, the research group think that improving BRT line faces a great challenge while receiving great support from residents who live along the line. The main problem is that BRT line overlaps the route of bus 613. Present interregional passenger transport route from Miquan City to Jiajia supermarket in Urumqi was changed into urban public route which named route 613 in March,2009 , after Miquan City was changed into Midong District in August,2007. There are 107 private buses which are affiliated to Siping Company, Chanshun Company and Zhenyun Company in this road. For this problem, the research group visited each relevant department and summered the opinions from each of them:

**Hopes of drivers and practitioners in No. 613 bus:** Firstly, government purchases vehicles in one step, just like the previous pattern of purchasing Urumqi private buses, using the number of rest using days to multiply the compensate of 90 Yuan a day(according to the document [2009]81 which was issued by Urumqi urban Traffic Office on March 26<sup>th</sup>, 2009, the rest using days means the duration of three companies' management, which would be come to end on March 26<sup>th</sup>, 2017 after 8 years. The following is the same.), purchasing the buses after second depreciation. Then, settling down the drives. Secondly, government should take back the route franchise and offer some compensate. Thirdly, arranging them for other routes.



**Hopes of the three transport companies which the No.613 belong to:** The Unified Management Office and Traffic Office should arrange a meeting with the three companies and drivers and negotiate how to solve the problem; before construction, there is a need to integrate buses in Midong District. It involves two steps. First step is opening the door, let bus line 33,6 enter Midong District gradually. The second step is to adjust the No.1,No.2,No.3,No.4,No.5,No.6 bus appropriately in Midong District. If government purchases the buses of No.613 and settle the down drivers, then the government should offer compensate to three companies which the No. 613 belong to. The way of compensate can be financial compensate or provide with good policy, both are acceptable. If the government chooses financial compensate, the company suggest using compensate of 1000 Yuan per bus a month multiply the rest manage months(as above)

**The opinions of Urumqi Traffic Office and Midong Traffic Office:** The leader of Traffic Office thinks that No. 613 and BRT6 can be opened at the same time, with a good competition, or making a line changing plan before construction. Government can not purchase buses No. 613 like purchasing Urumqi buses. Government only purchases buses and pays the bill after professional company evaluate the buses' price. As for the route franchise, government says that it belongs to country and can not offer compensate. As for drivers, the government will try their best to settle down bus staffs and let drivers be re-employed by training.

We can see from above summery, there are some disagreements in interest distribution between two sides.

According to above situation, the research group put forward the specific suggestions.(see from 6.4.3)

With supporting the construction of BRT, residents in project area put forward their own ideas about the current traffic situation by case interview and informal discussion among residents. According to their own travel experience, residents in project areas show the traffic problems to researchers. When the researcher talk about the questions in traffic, in sum, it's mainly about the city road system and its operation; bus total running; views of BRT; views of common public traffic; the total cognition of chronic traffic and analysis of current situation by static traffic and intelligent transportation.

### **The views of city road system and its operation.**

#### **●The uncoordinated development of the road network and the unreasonable road grade proportion.**

The road construction of Urumqi are far behind the increase speeding of cars, now Urumqi have kind of vehicles about 650,000, many passengers 'cars are running in Urumqi and stopping in the city, it take up great public resources. The increase speeding of vehicles should slower than the speeding of road construction , but now the situation is that the speeding of road construction can't catch up with the vehicles

increase speeding, so the road would block up.

●**The lack of secondary main roads and branches**

The most prominent performance of the lack of secondary main roads and branches is the project of the ongoing West Hill road reconstruction. The transformation of West Hill Road in Urumqi, carried out two years in a row, there are no way to go in West Hill, so the influence of the road instruction to citizens is clear, many citizens have to rent house outside for 2 years.

At the traffic lights of East back street of East outer ring road, it is at least half an hour to pass in the morning rush-hour, the main reason is: the vehicles from west , six Bay direction and East outer ring road are lumped together, but we must start through no other secondary roads can be bypassed or shunting vehicles.

●**Limited by terrain, the investment of the main road is too large**

The traffic situation in Urumqi is limited by the terrain, mainly invested in the traditional North-South arterial road in urban area .Santunbei as the starting station, BRT3, BRT4 and subway all begin from Santunbei, and the replicate investment is too large. The North city is the main area of city dweller in the future, the investment should be put more on the north part of the city, as well as ensure a certain invest proportion of the secondary main roads and other marginal urban transit lines.

**Mr. Huang, male, Han nationality, 40, individual, technical secondary school, successful square heads:** this is the old town, located in the business zone with heavy traffic, especially during morning and evening peaks at North Xinhua road, cars congest a lot. In my opinion, the city planning of Urumqi is not good enough, it should transfer the old town business functions to a new city or district, such the vehicle flow rate will be changed. New city will wait for faster development, and traffic problems will be eased.

——the third transcribed interviews on March 25, 2014

There is frequent traffic jam in the part of fast track section, especially in main or secondary roads. In the survey, many private car owners disagree with the construction of BRT. They think the best way to release the pressure of ground traffic is to construct subway. BRT is a kind of transition mode of urban traffic, it is no denying that it would be eliminated. It is a kind of resource wasting to invest more money in BRT. the private car owners complain a lot about the frequent & normal traffic jam, which always occur in fast tracks while the BRT always lay idle.

The distinction of the function of driving roads is unclear. The phenomenon of cars changing lanes freely, occupying the bus roads and cramming into the straight lanes when they change direction is frequently happened, caused urban traffic jam in Urumqi. Some lanes even can be used to go straight as well as turn right. The unclear distinction of roads slows down the driving speed. Some special areas, such as the park of railway station, public lanes, BRT and fast car (k1, k2)all share a route,

leading to the mixture of people and vehicles, it would be a big trouble when problems appear..

**Zhang Yanli,50 years old, Han nationality, who used to be a bachelor ,now turning to be the Civil Affairs Bureau director, said:** As drivers we all know that some lanes can be used to turn right or go straight. If we reserve the setting, the turn-right lanes are always occupied by buses and taxis, and in this way, the turn-right vehicles will be impeded on the roads, which cause the traffic jam along the roads, therefore, resulted in a series of congestion, and get into vicious circle. Go straight, turn right, turn left should be clearly separated from each other for special purpose.—the interview transcription of first group on 14th,March,2014

Lack of supervision on taxis and illegal cars, it is hard for citizens to get a lift. Though the numbers of taxis is plentiful, the difficulty in getting a lift is long existed. The reason why many citizens choose to take illegal cars is that they have no choice to take taxis in rush hours. Why? On the one hand, the government subsidize the taxi drivers, but most of them stop driving. On the other hand, taxis all congest on the streets in rush hours, so they can't speed up. Moreover, it also has something to do with some drivers who break the traffic laws and jump the queue freely.

Though it is difficult for people to get a lift, the government should strengthen the power to crack down on illegal taxis which do business freely. In general, private car owners only purchase compulsory insurance, there is no guarantee for the security of passengers and illegal cars, it poses a great threat on the taxi industry. The research group think the operation of taxis can't live without market, it is more efficient to let market regulate itself and follow the law of marketing rather than using administrative means.

**Wang Wei,18 years old ,Han nationality, a fresh man who majors in ethnology in university, said:** I think the number of illegal cars is too much to believe, when I am waiting for getting a lift, a crowd of empty taxis come as well as many private cars.

**•Too many transport rehabilitation project resulting in road building perennial disturbed people's normal manufacture and life.**

Road construction has become a normalization in recent years in Urumqi. Limited by the special corridor floor landscape in Urumqi, residents mainly work in old urban area, but their lives are “Expand northward” and “Westward” into new urban area with city expander. The construction of belts, highways, high speed railways, subways in turns and the upgrading and rebuilding of old raged lines have made the traffic congestion worse and worse. This also badly disturbed people's normal manufacture and life.

**ZuKula,woman,37 years old, university gradates, Uyghur, clerk of Jikang drugstore near the Municipal People hospital:** My house is settled around Xinjiang Agricultural University. I need change buses twice to go to work here, and every day is the same. So for people like me who settle home outside the work unit and go to

work everyday, urban transport has close relationship with our life. It results in traffic jams with slightly road construction. And it takes 2 hours to reach Hong Shan from here if caught up in the traffic jam. So we are painful when road is being built. Some days that the car cannot move and I have to walk to home.----interview transcripts of second groups in March 18<sup>th</sup> 2014

**General cognition of current bus situation:**

- Confirm the positive effects of the continuously promoting of the public transportation on improving people's living standard.

**He Tao , male, 35years old, Han, college graduates, worker in Hongshan new century mansion:** I think that civilians benefit most from the improvement of urban transport. The parking fee is 3yuan per hour here. I arrive at the company at 10am, leaving at 7pm. The parking fee for one day is almost 30yuan. We only take rest 4 days one month. So the parking fee for one month is around 600-700 Yuan. I not only pay parking fees here, but pay 80yuan for one month in sub-district with card. The total cost on transport is almost 2000yuan one month plus money on air-entrapping and my wife cost on bus. Our salary is only 4000yuan, and we need eat, support family and current expanse. Surely it is not enough. People who drive private cars will decrease much with construction of subway, BRT and bus now. We can depend on bus in routine travel and the saving money can be used to enhance life quality.----interview transcripts of second groups in March 18<sup>th</sup> 2014

- Construction in Mi Dong bus station is backward, public transit hub need to be built urgently.

At present, the infrastructure facility of Midong bus station is badly insufficient. There are 154 bus stations in the area, and 118 bus station without bus bay, bus shelter, bus stop board. It occupies 76% of whole bus station. Almost every bus has no regulated stop site and board and disembarkation randomly in the streets.

Because the investment on bus infrastructure facilities are insufficient in Midong area, the construction of the terminals in this area is backward.

Because of Midong area lacking of transport infrastructure investment over many years, which lead to the construction of the bus stop departure station is relatively lagging, in addition to the Midong area bus terminall, eastern passenger transport station, Hualing stone material market has larger space for parking, there is no enough land to use as bus stop departure station, no normative parking lot, the only method is to occupy the open space to park the bus temporarily. In addition, the other 8 lines from Midong area to the central urban area also exist the land tense problem of building the bus stop departure station, which has great impact on the adjustment and operation of the bus lines.

Due to the vast majority of bus lines management in Midong area is individual businesses, after the end of the bus operation, they park in the conditional bus terminal, or the self-employed can park in their own space, vehicle maintenance shall

be the responsibility of the individual operators, vehicle maintenance management is difficult. In addition, there is a phenomenon that the Midong operating vehicles of rural passenger transportation class line and the vehicles from Midong to the outside area share the same parking Spaces. Overall, Midong area has a shortage of supplement bus depot, bus parking land cannot be guaranteed, need to strengthen the construction of bus depot.

- Low transit site coverage remains to be further improved

In urumqi, there are still some sections of the road lacking of bus stops, some lines are adjusted and rerouted, which also causes some section of the road periodic time no bus, bus stops coverage rate need to be further improved, especially the Midong area, the survey data shows that the accessibility of Midong area bus station is at lower levels in the city, which is one reason for the low proportion of residents travel mode in Midong area and reflects that the public transit network in Midong area is still not fully covering the urban area and need the reasonable optimization.

- The bus need to further standardize the management

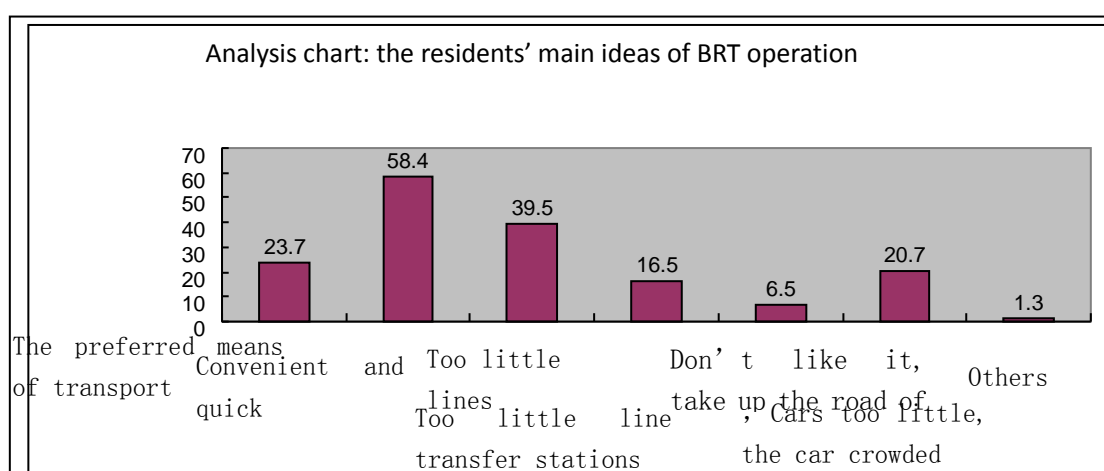
Investigation in Midong area, the residents along the 613 line generally reflect the bad attitudes of the 613 line bus driver , stop at random, and malicious compress station and refuse to take the elders who use old card the and regular raise the bus fares, and so on. Although in the past two years, this kind of phenomena has frequency decreased, the residents along the line said that there are still similar incidents. This is mainly because the 6 bus lines of Midong area and 613 line mainly adopt contract leasing and individual affiliated management. Industry threshold is low, the employees can not get training, line scheduling operation is not professional, basically adopt the enterprise or individual's operation and management mode, which causes whole bus lines operating system in chaos. Therefore, on the premise of bus industry as a social public welfare industry, it is necessary, from the perspective of the management system, strengthen the management of Midong area bus system, to improve the level of bus service.

**Chen Jinping, female, 45 years old, the han nationality, clamp bay garden community neighborhood office staff (post) :** 13 line stops at jiayuan community, then take the No.613 bus to mi fountain, the results is that the 13 line was squeezed out by 613 line.The attitude of 613 line driver is bad and refuse to take the elderly who use old card .

### **The opinions for BRT:**

BRT has been running for nearly three years in Urumqi. From the initial emerging things, to suffer much criticism, to win critically acclaimed until now, looking forward to opening more routes, to say the Urumqi public traffic makes an effort to achieve the goals of" easy, quick, convenient, harmonious, safe and clean". From the current residents' attitudes towards the BRT operation, most residents hold a positive attitude. 23.7% of residents choose BRT as the first choice vehicle, 58.4% of residents think

BRT lines too little and they hope the BRT lines could be able to continue building to form transportation network, 16.5% of residents think if there have more station transfer points, it will be more convenient and beneficial. Certainly, there are high proportion of people think BRT buses too little and crowded, accounting for 20.7% of total residents, especially line BRT one, because the traffic is huge, the bus crowded is the normalcy. There is also a small number of people think BRT taking up the road of driving, squeezing other household car road. However, in the interview, some people who have their own car, think BRT is conducive to encourage public transit, reducing the use frequency of family car. In the long term, it is helpful to ease traffic congestion and it is worth to advocate.



**Diagram 3-2 the residents' main ideas of BRT operation**

In the research, there are more than half of the respondents have expressed great concern at the BRT fare. At present when the price level is rising quickly, most ordinary people hope to continue to maintain the fare in one RMB, especially the low-income people whose response is much stronger. some people who need to work, hope BRT could use commutation ticket to reduce travel costs, a small number of people said that they can accept the ticket price rising to two RMB, but on condition that more than 10 stations, especially the residents in Midong district hope to have the same rights like the urban residents in Urumqi not suffer discriminatory.

**Mubarak, female, Uighur, 33, individuals, college, sisters salon barber's head in south Xinhua road:** now prices rose faster, so we are worried about BRT ticket prices will rise. I think the BRT fare is very suitable for our common people's economic situation now, because we just didn't have enough money to choose bus, have a little money can choose taxi, rich oneself buy a car or two. Public transport services for the people, not on profits, and the amount of people that take BRT is large, the department also won't lost, although it is just one dollar, but many times, also a bargain. I hope to continue this kind of price later.-- on March 16, 2014 in the second

interview transcripts

### **The problems of the current operation of BRT:**

- BRT5 line across the bus lanes, not completely reflect the advantage of bus rapid transit, the evaluation is low.

**Wang, female, Han nationality, 42, individual owner, Jin mountain community police sail battery general agent in Xinjiang:** nobody took BRT, the position of the station is not appropriate, repeated bus routes are also more , 23, 34 road and its basic coincidence, there are many people who take the 23, 24 bus which are also many. BRT5 line doesn't have all the lanes, as fast as the other cars.---- March 20, 2014 the first group interview transcripts

- there are car string phenomenon of BRT1 and BRT2 in Youhao Road, the phenomenon of standing outside the vehicle queuing is serious, which reduced the traffic efficiency; the problems of taking wrong lines frequently happen, and no line marked on the fault line.

- Line BRT 2 and line 3 are not set on the part of the BRT lanes, but they paint the lines of the bus lanes, the peak of the disturbances of vehicles from society is bigger, affect the speed of the car.

- After opening BRT, mostly take full road closed operation mode, has caused a dramatic decrease pedestrian crossing point. And set new pedestrian overpasses or cross the street site shortage, lead to pedestrians crossing the street. On April 1, 2013, the pedestrian crossing the road through a red light will be fine, but there are still some people ignoring a red light, in violation of the street, especially in the morning and evening rush hours, pedestrians do not obey the traffic rules is one of the factors of vehicle traffic speed is relatively slow.

- Along the intersection congestion phenomenon, especially for the right turn traffic flow in the straight right import way tend to be straight line up the vehicle stop, can't turn right, leading to very serious queue chain reaction and chaos and transportation organizations.

- BRT vehicle hardware facilities at the same time of keeping need to be further improved. Some people reflect the BRT at the time of opening, cool in summer, warm in winter , very comfortable, but then some facilities are existing in name only.

- Some BRT in the summer do not open air conditioning, do not open central heating in the winter. Some of central heating of the platform temperature is very low in the winter, basically can shelter in extremely cold weather, unable to keep out the cold. Later some greenhouse was closed, it belongs to the resources waste, it makes grave damage to the image of the early reputation of BRT company.

- Lack of station platform security facilities. Some people think that from the security situation of Urumqi till now, a simple open packet inspection cannot achieve real security. Recently a series of violent and terrorist incidents make citizens worry

about the safety of use in public transport. suggest put luggage security convey or belt and other facilities to avoid major accidents.

- there are too many people crowded in the car during the rush hours. Most citizens reflect BRT is too crowded, especially in the summer, the air-condition bus is not ventilated, feel very hot. Many people would rather choose the general bus to travel than choose BRT1 line in the summer.

- Each station has set up the swipe machine gate of bus card, but when you swiping card, there is no prompt tone. Some people swipe old card or student card to muddle through. Swipe machine's sensitivity is not high, two people get to close, brush card can be muddled through successively.

#### **Attitudes towards the current general bus:**

- too much overlapping line, and can only use the same line with BRT bus, there is no special fast lane for BRT bus.

**Zhang Yuanli, male, Han nationality, 50 years old, undergraduate, director of civil affairs bureau in Urumqi urban area:** after BRT getting through, there is something wrong with the bus lines design, 708,52, a lot of vehicles are concentrated in the same road. Line BRT1 almost pick up all the passengers on Beijing road. Can we spread bus to other bus roads? Do not occupy the fast bus lanes. No.52 can directly arrive to railway administration, there is no need to run to railway station, around a big circle. We can split buses on BRT to the secondary main roads and alleys, do not occupy the main road to cause jam and crowd. Moreover, there are few of people to take these bus.—On March 14,2014, the first set of records of symposium.

- Part of the line is too long, departure interval is too long.

**Mrs. Wang, female, Han nationality, 42 years old, individual owner, the general agent of Jingfan storage battery of Jinshan community in Xinjiang.** From Qima mountain to Dawan, whenever No.301 bus always has many people, very little car, long lines, need to wait for a long time. From Beiyuanchun to Yingbin road, you waited No.37 bus, it may not come.—On March20,2014, the first group interview transcripts.

- there are too little bus lines in the north part of the city.

The consensus from the north campus of the Xinjiang normal university: Although now there are a few people in the north city, we should look far, not only should consider the BRT lines, but regular bus lines. Now there are too few buses in the northern part of the city. Some rural areas like Toutunhe district have already started to develop bus service. We would like to plan ahead of time, the bus first.—On March18,2014, the third group interview transcripts

#### **Attitudes on the slow transportation**



●The space for slow roads is reduced even replaced, and the space for pedestrian is narrow.

**The collective views of the teachers and students from Xinjiang Normal University North Campus:** In Urumqi, many urban areas have lots of foot traffic, special roads for the disabled and sidewalks are occupied for parking private cars. I think it is not desirable. Maintaining sidewalks is necessary.

--A transcript of the forum from third group on March 18, 2014

●Lack of the facilities for slowly crossing street, it is difficult for old people to cross streets.

At present, there are underground passages and overpasses, two main facilities for crossing streets within the city. But the underground passages of many sections did not offer a direct help to local inhabitants. Some problems still exist, for example, the existence of some underpasses is plugged, the lighting in the underpass is damaged, and the rainy day causes rainwater intrusion phenomenon but no one to clean up. Stairs steep still exists in some overpasses, also there can be a lot of snow that makes roads icy in the winter, especially it is terribly inconvenient for old people.

**Huang Yuzhen, a 49-year-old teacher from the Han nationality, and she lives in Jiachengyuan community.** She said, " both sides of the overpasses must have stairs, and do not increase the detouring distance. Many old people would not like taking BRT when saw the overpass, because there are some problems with their legs and it is hard for them to climb the overpass. Once I saw two old people stop and go into the BRT overpass, it is really tired for old people. And particularly in the section of hospital, it is inconvenient because people who go to hospital are generally sick. If the pedestrian crossing can has a direct connection with BRT, that will be better for sick people. The winter in Xinjiang, the plastic anti-skid pads that covered in the overpasses are frozen and damaged. There were costs, too."

----A transcript of the interview from third group on March 15, 2014

### **The attitudes to static traffic:**

●It focuses on the ground parking, we can find serious accessories shortage.

Parking space under strain is a universal phenomenon in Urumqi now. Some high-rise buildings occupied the underground parking spaces for building profitable facilities such as supermarket, which leads to a large number of vehicles parked on the road. It not only would cause traffic jams but also exists enormous security hidden danger. The actual affiliated parking lots are not put into effect in the part of buildings, especially that of non-resident category. That leads to a low level of the quota for construction of the parking lots. From the data in the census table 2-26 of parking facilities in Urumqi built-up areas, the number of vehicles parked on the road has three times as those parked on the underground. The ratio imbalance is more serious between the number of vehicles parked on the road and those parked on the

underground in main urban districts. Tianshan District has only 6381 underground parking spaces, and Shuimogou District has only 3482 one, that accounts for a quarter of the number of vehicles parked on the road.

There are a large number of vehicles parked outside the parking space, and with a surprising number. The statistics showed 247000 vehicles have no parking lots, that accounts for 65% of the total.

**Table3-7 the Census Chart about Parking Facility of Built - up District in Urumqi City**

District	Administrative District	The number of vehicles stopping in the crossed parking place		Sub-total	The number of vehicles stopping in other parking place	Total
		Underground	Ground			
The Four Main Districts of the City	Tianshan District	6381	22089	28470	54253	82723
	Shuimogou District	3482	11115	14597	37784	52381
	Shayibak District	7351	18349	25700	58976	84676
	High tech Zone (New Downtown)	12584	27875	40459	51937	92396
	Sub-total	29798	79428	109226	202950	312176
The Outer District of the City	Economic Development Zone (Toutun he District)	1431	5394	6825	19301	26126
	Midong District	1276	8126	9402	24697	34099
	Sub-total	2707	13520	16227	43998	60225
Total		32505	92948	125453	246948	372401

Data source: the Census Chart about Parking Facility of Built - up District in Urumqi City

**Ma Qingchun , male, 45 years old , Hui nationality, Bachelor's degree, and the Xinjiang Uygur Autonomous Region Bureau of Quality and Technical Supervision organs Logistics Service Center official:** The reason of parking problems is too much cars but not enough parking space. Suggestions: firstly, increase the number of parking place because the large number of cars is an unchangeable fact. And the government should require every tall building to put the negative and negative second floor as a garage. Secondly, even though some of the tall buildings are designed so, they are used as supermarkets, bath and other places for profit instead of garages. Those garages which diverted for other purposes now should be completely recovered. Now like the Pakson Store, its negative floor is used as store instead of garage, so it must be resumed to be a parking place. ——on March 17, 2014, the second group

Moreover, with increase of the parking fee, residents try to occupy more public land used as the place of parking. The research found that the number of the side parking cars has reached 27,000 during the daytime rush hour and 24,000 at night. A large number of illegal street parking cars, day or night, have been troubling the limited police force, which cannot effectively manage it. Some allies are filled with private cars so that pedestrians can't get through.

**Feng Yunzhi, female, 41 years old, Han nationality, is responsible for the work of Floating population at Beiwei 3<sup>rd</sup> Road community:** Now, there is too many private cars. At night you can see too much cars when walking on the sidewalk. You must yield to the private car or you will be scolded. Now, it's already 21<sup>st</sup> century, but there should be no place to exercise and take a walk. Too many cars parked in the community and on the road. I am wondering now whether people should yield cars or cars should yield people. And no one cares. Our communities do not have law enforcement power, and now cars even be parked in the Woods. ——on March 22, 2014, the third group

Data sources: The static parking data stems from the report of Urumqi Built-up District Parking Facility General survey.

- Over Insufficient Parking Place in Key Areas.

In Wu District, most influential public facilities all focus on a few important areas, especially some old towns with much people and cars, narrow roads, high density buildings and insufficient parking place auxiliary construction, causing serious traffic problems and highlighted parking contradiction. No matter commerce, or official businesses, or hotel catering, even hospitals all emerge the problems of insufficient parking places, low turnaround rate and too high saturation in peak period, which caused a series of problems, such as difficult parking, traffic jams and chaotic traffic order.

- The parking fee is too high, and the problem of incorrect parking fee is

outstanding.

The parking fee in Urumqi City has increased constantly in recent years. Now it charges 6 Yuan an hour in core areas of the city, other areas almost for 2-4 Yuan an hour, but the parking people have no right to bother about the charging standard and the whole city also lacks the explicit parking standard. For example, the fee of short-term parking for 15 minutes or half an hour and long-stay parking for a day are mostly negotiated by owners and parking managers, which lacks of supervision and operability.

**Mr. Jia, a 29-year-old man with the Han nationality and Yili account who graduated from high school, is a Huaruixin Quick Hotel housekeeping staff:** walking upward from Erdao Bridge, you will meet a minority without uniform collect parking fee anywhere, he asks you for parking fee with no receipts and invoices. If you do not give, he takes a road pickets stand in front of your car and does not let you go. The parking fee collection is too farfetched, so I hope that parking fee collection can be more formal and consolidated. — The second interview transcript on March 16, 2014.

### **3.1.2 Views of the Urumqi government and its relevant municipal departments towards the current city traffic conditions.**

#### **Problems about road traffic:**

**Urumqi planning department of land resources bureau:** we concern about the BRT utilization rate, and we hope that the BRT line can be a special lane; such can embody BRT sufficiency and advantages.

**Urumqi municipal facility administration office of urban management committee:** (1) advise to conduct a data survey to the BRT along road files. Clear the structure and geology situations about present road construction, master the road foundation situation, and transform those roads which aren't suitable for BRT operation in advance. (2) It's necessary to transform pedestrian crossing facilities and increase overpasses and underpasses lest causing pedestrian crossing dangers. Supporting facilities need to be considered as a whole in advance, to avoid problems and adding them after BRT operation. (3) We should have a special reformation to major transfer sites, level-crossings and road foundations and elevate the construction standards, so as to accord the road situation with the BRT operation requirement and ensure the durability of the road using.

**As for the terminal, cars maintenance field and transport hub transfer center.**

**The Director of Railway Bureau Information Department, Mr. Liu, male, Han nationality, and 56-year-old:** I think the new Ergong high-speed rail station will be

the biggest railway transport hub center in Xinjiang. I hope that hub center in planning should take the convergence here of BRT, bus and subway into consideration. The government designs public transportation lines with long-termed, prospective eyes according to the hub center effects of new station. The new high-speed rail stand is expected to send 20,000 people every day, so we need to think about how to better channel passenger flow for public transport to ensure public transport capacity.—the third interview transcript on March 17, 2014

**Urumqi City Public Security Bureau Traffic Police detachment vehicle management director Liang Lixin, male, the Han nationality, age 53:** there is a T-junction in front of our DMV usually with heavy traffic, so in the process of construction it may cause the vehicle congestion, this is a question..... In addition, I suggest: (1) in the process of project construction, we should do well in the vehicle distribution job. At the T-junction of Kashgar South Road and Midong Avenue, there are registered vehicles every day, BRT will meet here. The DMV is also an important node, in which all the year round in a vehicle queuing of traffic jams. (2) at important node of BRT, we should pay attention to the crossing facilities, for example: Midong Avenue is a frequent accidents road, because there is too much vehicle and too little road crossing facilities. Also, the over wide roads as well as the disorderly crossing road pedestrians is likely to cause traffic accidents. I proposed to flexibly set the crossing facilities according to situation, to make it easier for pedestrian and social vehicles, and to ensure the bus priority at the same time. (3) According to the work experience, in Urumqi, the drivers seldom let the human go first, so the government should strengthen the publicity and education to improve the quality of drivers. (4) The Nianzigou passenger station should be moved, closer to the high-speed rail station, so that it is convenient for people to go out. - March 20, 2014 the third group interview transcript

#### **About the arrangement of BRT underground pipeline configuration.**

**Urumqi Water Bureau, Water Industry Group, Water Industry Customer Service Center:** the major problem put forward by the three units focus on underground pipeline, they hope that the construction of lines and stations should learn from the experience of line 1, 2, 3, 5 to avoid occupying the underground pipeline. Meanwhile, we hope that the relevant units involving in the underground pipeline can negotiate with the constructors to solve the problem of underground pipeline removing together.

**Song Weijian, Urumqi Water Supply Bureau(male, Han nationality, 40 years old, university degree, department head of water supply and drainage management):**The system of water supply and drainage ran into troubles in the construction of BRT last year. The line of BRT1 and BRT3 were constructed in a hurry, so the underground pipelines were occupied by bus station. More problems would be involved and the loss would be huge, once underground pipeline run into problems and need hasty repair. Especially some places where can be dug until the bus station was taken down. Therefore, some protective works are needed. If

something goes wrong, there is a need to inform underground pipeline units.—Record of first group on March 13<sup>th</sup>, 2013

**OuYang Changlei**, **Urumqi Water Industry Group**(male, the Han nationality, 36 years old, university degree, the under secretary of safety production dispatching and managing center): In my personal view, the construction of BRT4 and BRT6 has little influence on pipeline removing. It has no influence on road. The most important thing is the design of stations. Personally, island type platform is better. The island type platform is small, so it will have little influence on pipeline which is usually located in the road on both sides. While there will have more influence on pipeline if set up side type platform. Another suggestion is to make a good use of green belt, because pipeline is rarely under the green belt. Pipelines are usually located on the main road or on the side road. Side type platform can be located in the pavement where have no pipelines if it is a must.—Record of first group on March 13<sup>th</sup>, 2013

**DuJuan of Urumqi Water Industry Costumer Service Center**(female, the Han nationality, 46 years old, postgraduate, the director of Urumqi Water Industry Costumer Service Center): If government has made decisions to do this, some preparatory works in the early stage and research in all respects are needed. We had many failure experience, especially in the construction of BRT1 and BRT3. These projects were carried out in a hurry and the basic research in the early stage was flawed, not in the place. Some underground pipe network need to be avoided so we had to move the meter well. However, BRT station is very big, there is no way to install meter wells within hundreds meters around the BRT stations. Then we had to locate the meter well on the motorway or on the middle of the road which causes the inconvenience of checking meters. Check meters is our daily maintain work, but if workers descend the well too often, the traffic would be influenced and workers are not safe. If workers descend the well rarely, the maintain work would be out of place. These projects did not make a good preparatory negotiation with Water Supply and Drainage company. What's more, pipeline removing was too haste. Winter is coming, but pipelines were not buried deeply enough—too shallow, which may freeze in winter. It also has an influence on water saving devices in BRT stations. In BRT stations, there are warm rooms in winter and facility of water supply and drainage in summer. Whereas, if pipelines are frozen, it will cause inconveniences. Many room have to be closed without water supply and drainage facility. Water flows back, overflows back, even flows into station with the poor water supply and drainage. Congestion and freeze are the most important problems in winter. Here are some suggestions: Firstly, before construction, it is crucial for constructors to gather relevant underground pipeline units and have a fully communication with them, they tell where is the approximate station, we will provide the characteristics, existing problems and potential risks of each station, put forward step by step, then come up with how to avoid, how to move and try to reduce the impact. Secondly, for sections with larger problems, such as Al-Tai Road, we should carry out the excavation of roads, old network replacement in dependence of the BRT construction. Thirdly, the

costs of renovation of pipe network logically should be handled by the project party, so we hope the project and the government can fund to solve the old pipeline replacement of urban transport improvement project II. Fourthly, in the station construction, not only Altai sections, other sections will also have similar problems so it's better to solve them together. Fifthly, the construction specifications should be done by the industry construction companies, which involves the avoiding of problems like not buried deeply enough, water intrusion, back flow of sewage, after slope construction is not enough, and so on. These issues are the most prominent so far. The water supply and drainage program of BRT1 and BRT3 is conducted by our department, but the work of construction is lagging behind, after finishing build the platform, they yet connected with us, temporary migration, after the slope is not good and buried depth is not enough. These contradictions have not yet to solve. ----On March 13, 2013 the first set of transcripts.

**Li Fen, Water industry customer service center in Urumqi, (male, Han nationality, 40 years old, University degree, Ukrainian Deputy Director of the municipal water service center):** especially in the old town, at the time of line 3, the underground section has been occupied, it is impossible to migrate pipelines, it can only be pressed under the platform, so if pipe bursts, we can't repair it. Design Department did not contact us, in order to catch the duration, they connect to the nearest drainage facilities, and do it by themselves, which caused freezing.

**Ma Yun, Urumqi thermal company (Deputy Director of Urumqi thermal Corporation User Service Center):** I just saw from the track map that BRT4 starts from Water World to Red Hill island, along this road has my pipeline, in road center line of Xinhua road ,a little over the ITC, they are pipe700 and 800. My main line deviates towards west, and in the middle also crosses the branch pipeline, so when repairing BRT ,we may also go to the site to have a look, to keep our branch wells from been buried. It 's not allow to be excavated after Xinhua road being refurbished overall in 2009, until the pipeline accident in 2010, which is probably in walking street. It hasn't been very long since the pipeline was reconstructed, but it's a no compensation design with very high pressure of underground, because the heat from southern area, when coming to the small West Gate, has reached its most ends, as a result, the terrain height difference and the running dynamic pressure caused internal pressure of tube network to over 11 kg. This is a challenge for the tube network , once tube network has problems, it will cause a lot of trouble. In terms of the winter emergency, the BRT design must leave us a cross section to solve the problem. There are still high pressure and temperature in the pipeline in winter, once it burst out of the pavement, it will burn people around, so it needs fully consideration. After all, the BRT station is half-closed in winter, and the flow of people is high. I think BRT station constructs very thick layer of water stability, which can hold massive vehicles and thus avoid collapse. The water stability has a protective effect to pipe, but we can't repair the network in time. The pipe network in Mount Tianshan District and water district are very dense, the pipe network is constructed along the way. our thermal industry has such a feature: The density of pipe network has a positive

correlation with that of residents. The greater density of residents, the greater density of pipe network it is, and the design requirement of the pipe network is higher. The southern district of the west of No.4 line covers the area of 10 million square meters, but it is inconvenient to repair if it has something wrong. Every time we have a general survey of the pipelines from Santunbei to Hongshan, especially inside the BRT station, it is very difficult to check, because it is relatively closed and not allowing people to enter. Also the operation is not convenient, and cars cannot through the roads when we open the well covers. The pipelines lie at the middle of Xinghua road, the west of it is drainage, and the telecommunication lies at the east side of road. The heating power in winter is still a serious livelihood issue. The heating power and lines both go wrong, it is really terrible.

-A transcript of the interview from the seventh group on March 19, 2014.

**Yang zhenning, who is from a natural gas company in Urumqi, and he is the director of the operation division.** The BRT4 line runs through the pipelines of three branch companies of Tian, Sha, and New district, including the medium pressure and sub-high pressure pipelines. In sum, the old medium pressure pipelines lie on the sidewalk, and newly-built sub-high pressure pipelines mainly lie on the side of lane. There are individual pipelines crossing the middle of the road, which has no particular impacts on stations. If we build the sites on the center of the roads, it will have the smallest influences on us. No.6 line mainly lies in water and in Midong district. Coming out from the northern suburb, the pipelines mainly lie at the edge of the road but not at the center of the road, all are built on the sides of lanes and sidewalks. Coming to Kazi Bay, partly more than 100 meters of pipelines builds in the center of the road, but it is not a significant impact. The pipelines of Midong road lie on the sidewalks. The No.6 branch line builds in urban area of branch companies. From Kashgar road to Satellite road and then to the High-tech district, the old medium pressure pipeline is on the pavements and green belts, and the new sub-high pressure pipeline is on the side of the road. In a word, we suggest that the stations should be built on the center of road, which has no big impacts.

The tolerable pressure of pipelines is rare in the domestic market; it is beyond the international standard. Some pipelines such as that of oil and gas are irregular. The occupancy of pipelines is hidden danger, and the building of the BRT can create new occupancy, which is inevitable. The old problems haven't solved and the new hidden troubles are coming. We cannot solve the problems even though we have the means and technology. So we should control the troubles in advance.

——A transcript of the interview from the sixth group on March 22, 2014.

### **3.1.3 Views of the bus practitioners towards the current city traffic conditions.**

The bus drivers:



The bus drivers are a group who has the deepest feelings on the traffic situation of Urumqi, and it is also a major group related to the common people's life safety. So it is the particular focus of this research. Almost all bus drivers have positive attitudes to general traffic situation in Urumqi. Especially after repaired the viaduct of Tianzi road, the road condition has a great improvement than that before the repair, but the congestion is normal at rush hours.

**Kazi Bay depot, driver of No.52 bus, male, Han nationality:** I joined in work in 1998, resigned the job and went out in 2007. In 2013, I went back to be a bus driver. It is more comfortable to drive than before. Previously, driving a bus is like flew a fighter with jostling ward. Now, just one follow one and dangle after the former. Time is loose. The key point is the road is better.-interview transcript of 5<sup>th</sup> group in March 15<sup>th</sup> 2014

There are too many private cars and the car change lanes at will. Passerby walk across the road randomly. Many drivers think that the numbers of private car grows too quickly. Also, quantities of new drivers change lanes at will and occupies curb bus line because of insufficient experience. As a result, the bus drivers can not pull in. It is very dangerous for passengers get off at the middle of road. Some pedestrian ignore traffic lights which impact bus travel speed .

Bus drivers quality is variable: some drivers possess high quality with warm service; some drivers are just very rude and impolite. As a peer, I have also seen some drivers did not pull in and just stopped or deny passengers at will.

Drivers treatment is fixed, lacking long-term incentive mechanism: the drivers salary before was 4800yuan per year, increased by 220yuan recently. Government also provide 7 preferential policy such as treatment improvement recently, solve housing problem, settlement of family, help their children obtain employment. Although those are better treatment relatively, but with daily increasing price plus unchanged treatment in recent years, a incentive policy and mechanism is short of.

Too many repetitive lines and the management is ordinary: for example, the whole line of No.536 is coincide with part lines of No.309, No.304, No.922, No.532, No.78, No.303, No.52 and No.59.

Passenger flow volume and road management are ordinary.

The bus terminals lack parking lots: There are 30 No.45 bus, but the Dispatch Station can only park 10. And it is 7 for Jiujiawan, 7 for Xishan Plastic Factory, 6-7 for Bajiahu, The remained buses can only stop at the Qimashan intersection. Sometimes there is no vacancy so they worried where to park the bus. It is forbidden to drive home, so finding a parking lot is difficult.

Suggest that buses and BRT share rapid lines in non-peak hours.

**Song Liangjun, male, Han, 57 years old, junior school graduates, retired worker of bus corporation:** I drove BRT, and I think that BRT may share one lines

with bus. It will not be impacted with slightly separated stops. Now, the bus do not stop for long time and one or two minutes is enough. In peak hours, BRT is fast but the road is empty while other roads are crowded. It is resource sharing if bus and BRT share one lane, just like line2 and line3.---- On March 20, 2014 the first set of transcripts.

#### ●Bus coordinator

Bus coordinator is mainly the BRT station agent, regular bus routes charge one yuan , there is no specific coordinator. BRT station agents have a lot of work every day, especially when there transfer sites along the lines, the attendants need to guide passengers timely, reply to the diverse questions of passengers, and assist with security management. During the Spring Festival, the passenger flow volume at some big traffic sites can reach tens of thousands.

As to the traffic in urumqi, bus assisting workers also have some own views:

BRT passengers seldom use the swiping card function: most people had chosen to swipe card at the entrance, easy to cause congestion during peak, hope the media advertise more swiping card function,make the brake machine play its role .

BRT passenger flow volume is too large, on public sites, the scene of passengers getting on is in disorder.

**Ms. Wang, 27 years old, female, Han nationality, junior college, the BRT platform XiHong Road station staff:** BRT1, 2 and 4 all go through theXiHong Road, the platform is too small for a few cars into the station at the same time, sometimes a bit messy. Because BRT station is not like the subway station , the line number of BRT vehicles do not clear, also cannot be fixed out of the car window. For example, a car parked at the parking lot 1 for a moment, then changed to the parking lot 2,which bring much confusion to the passengers who want to get on or get off the bus. At BRT station, sometimes, passengers find the right car,but sometimes are wrong, so We will constantly remind passengers, working pressure is very big. - March 23, 2014, the second interview

#### ●Bus Dispatching Station staff

Bus operators control the departure time and the distribution of vehicles, now GPS is commonly used to locate, drivers exceeding the speed limit or retention can be reflected in the computer. Public transit dispatchers can intensively reflect some problems to research group.

**QiDaowan Vegetable Market No.78 bus dispatching station:**now, there is an increase of 200 cars every day, whose drivers are green hands, they do not have much safety consciousness, not good at driving, this lead to more and more accidents , mostly because some people and car do not obey the traffic rules. The special lines without supervision is useless, the key is to implement. Only when the operational efficiency is improved can the road usage be raised, can the cars speed be raised.----

March 16, 2014, the fifth interview

Large bus dispatching stations generally have maintenance depots. Because of the lack of fields for stop and protection, if there is a failure of bus, that can deal with in the dispatching station. At present, the outstanding issue of bus servicing is that we cannot assure the quality of fittings.

**Mr. Mao, a bus maintenance man in the Dongbajiahu Dispatching Station.** He said, "There is usually no guarantee for the fitting materials, they frequently broke down. Because of the centralized purchasing, that can't meet drivers' requirements. And it is the most common problem of bus maintenance in Urumqi now."----The interview from the sixth group on March 16, 2014

### **3.1.4 Views of the relevant departments of the Communications**

#### **Bureau towards the current city traffic conditions.**

##### **●Police detachment in Urumqi**

In the survey, Zhang Junwei, a chief of the traffic division of police detachment in Urumqi, who highlighted his specific ideas about the design and implement of the projects, that made us gain a better understanding of the overall traffic nodes in Urumqi at the macro level.

**BRT4 line:** The traffic of sections is not good except the Zhongya Road. In the district of Yingbin Road, Altay Road, Northwest Road, and Xinhua South Road, the saturation is very high, also have a higher level of service relatively. There are narrow cross-sections and high capacity at Yingbin Road. It is a little better about Xinhua South Road, with the lower capacity when we passed Guanghui bridge. I heard that Altay Road will be broaden and to build BRT. I personally suggest that the building of BRT and rebuilding of Altay Road have to proceed simultaneously.

**BRT6 line:** The problem focused on Midong Road. Midong Road is the s111 line of provincial thoroughfare, that connects with Fukang and Miquan city, and it is an important provincial road for passing. The features of the road are those both sides bring together many factories, enterprises and logistics, there are many lorries passing, and it is accident-prone section, the speed of vehicles is fast, and there are wide cross-sections, and dual eight-lane carriageway plus relief roads. The biggest issues of Midong Road are the potential security risks and pedestrian crossing. When the BRT and lorries passed at the same time, that can't ensure the safety of pedestrians.

**BRT6 line:** From Kazi Bay to Siping Road, there are more trucks. Kashi Road is a peripheral channel for lorries in our city. Kashgar Road was limited to traffic from 2013, it is closed to large vans, but small vans can pass.

Before the main road in north of city haven't been built, Kashi road is the most convenient way of north into the beach expressway. At present, the north of the city

develop soon, the community, the residents are many, flow of visitors traffic was high. Traffic control must be considered, the truck can't go with BRT. Overall the route traffic is relatively stable

- Urumqi bus group corporation

Urumqi bus group corporation is one of the largest bus groups in Urumqi, many bus lines and BRT lines are run by Urumqi bus group corporation. On the research symposium of the bus corporation, some relevant personnel from the Safety Transportation Department, BRT Operation Corporation attended. Overall, you think that the whole effect of the BRT operation is higher, especially the social benefit, the people widely recognized, but it remains to be further improved about economic benefit. Investigators summarize symposium content that are as the following:

First, the scientific integration of BRT lines. To consider the integration and optimization of line 5, Line5 is planned to go to the Hongqiao Terminus, but now it turn around in Changqingsidui under the bridge, it's not convenient for the people around. There are only about 20,000 people a day but with 40 cars, it's a waste. if there are 60,000 people a day, things will be better. In general, no waste of resources in passenger flow and the equipment is allowed.

Second, site Settings. if opens line 4 , there should be no less people than in line1. So we need to take the decrease of vehicle into account. It is better to move Nanjiao passenger station to use as the dispatching station for BRT operating companies. As for the construction problems of the parking and maintenance field, the volume rate must be increased.

Third, BRT fare. Bus annual investment is very big, the government investment is also very big. Looking at the bus fare across the country, the government's finance is limited, so is it possible to consider the increase of the price? Considering with the public and rising prices, it's reasonable to increase ticket prices to \$2, so that the overall operation will be better. The fare increase can maintain daily expenses. BRT vehicles are equipped with air conditioning and heating system, the daily cost is very large, so we still hope to raise ticket prices.

Fourth, the government in view of the BRT bus rapid transit take "bus priority, bus signal priority" and other relevant measures. There are more than ten thousand people in related line 1 a day, the opinions of the people is there are too many people crowded in, so they still want bus signal priority, improve the traffic speed. At the large hubs, the berth should be increased. As for the purchase process, the vehicle door is better to be designed to open laterally.

Fifth, the problem of the depot and other transport equipment. The problem of Beiyan road is that lots of facilities are not perfect, so when considering the setting of the depot, we should take the repairing and other supporting facilities like the fuel and gas station on the way back. As for the parking and maintenance field, we still need to strengthen the equipment. In terms of 3 years running, the number of the factories is

not enough. Some lines need outdoor maintenance, so we hope that the maintaining factories and the two ends stations can finish their projects when the new line gets through.

Sixth, the cost of the traffic equipment like BRT station. As for the stations, firstly, we have provided a lot of supporting facilities, such as the hothouses which can serve for the old and the weak during their waiting. These hothouses are supplied by electricity with a monthly cost of over ¥400,000. So we are wondering if we can solve this problem in other ways. Secondly, the problem of toilets and water supply in every station. It is difficult for the staff in the stations to go to toilets. Thirdly, the rebar and the glass didn't conglomerate well, so some places even become Water Curtain Caves. Fourthly, the cleaning turned to be more difficult during rainy and snowy days, so we hope that some measures could be taken to make it more beautiful and graceful. Fifthly, new technology need to be applied to increase the stiffening of the roads, especially at the nodes 30 meters away from the station. Besides, a proper design and construction need to be applied to the durability and usefulness of the equipment.

Seventh, the training and management of the operational staff. Due to the high configuration of the BRT equipment, we need to put more investment into the technical workers, and the training of the workers should be taken into the government's budget. At present, the urgent shortage of BRT drivers, with the driver-bus rate of 1:1.8, has turned out to be industrially vacant. The main problem is still the financing. The workers' salary hasn't been raised for a long time. The driver's salary is supposed to be no less than ¥4,800 and the BRT driver's is supposed to be ¥300 more than that of the common drivers. 160 of the 600 (almost 1/4) station workers have left their jobs which has caused instability of the working staff. The inadequate store of drivers may lead to the inefficiency of the follow-ups after starting the BRT.

#### ●The Metropolitan Transit Authority (MTA) of Urumqi

MTA is an important traffic management department of Urumqi. The chief of the transit department said: "the biggest problem of Urumqi transportation is the inappropriate planning, which didn't take the scientific population increase into consideration. In addition, the construction of the bus parking lots and the start & end stations have been delayed seriously. We need to solve make sure the public right of the roads and ensure the priority of the bus ways to try to reduce the inconvenience for the citizen's going out. For the emergency, we didn't able to carry out the precautions. For example, for the Urumqi 3.24 accident and the bus 531's collision to the train accident, we had some precautions, but we just cannot be able to go the sight. we were supposed to transport the first-aid articles as well as transport the wounded, but no one is allowed to get into the sight except the leaders or journalists. So the precaution were just impossible to be carried out."

### **3.1.5 Views of the taxi drivers and other transport practitioners towards the current city traffic conditions.**

For taxi drivers, the ever-improving public transportation service must bring about some challenges and competitions to the taxi industry. With the increasing attraction of the convenient and fast public buses to the citizens, the number of the taxi passengers is bound to decrease, which will definitely affect the taxi practitioners' income.

**Mr. Liu, a 45-year-old man from the Han nationality, and he is a taxi driver.** He said, "After BRT getting through, we have to clear the exclusive lane for BRT, so that streets begin to narrow, and it is prone to traffic jams. Our taxis will be jammed on the road but BRT won't. So many citizens do not choose a taxi but BRT. My understanding of BRT is that a livelihood project focused on common people for solving the problem of traveling of general public."----An interview from second group on March 20, 2014

The building of the bus station has a direct influence on the operation of taxi. In the survey, we realized they affect each other, bus drivers think that pulling over and carrying passengers near the bus station has a strong impact on the driving of buses. But taxi drivers think that the passengers at bus station are in demand, in terms of economic consideration, they will carry passengers quickly near bus stations under a premise of that they strive to avoid affecting the operation of buses.

**Mr. Zhang, a 32-year-old man from the Han nationality, he is a taxi driver with a technical secondary school degree.** He said, "Many citizens think, it is better to build the BRT lanes on both sides of road. If they are built on the middle of the road, that will be inconvenient for passengers to get on or off the bus. But building BRT on the both sides of road will cause the problem of the rights of roads, or our taxis will clash with BRT. For example, at the Qingnian and Guangming Road, the BRT lanes are built on the side of road, that will affects the taxi drivers to bring customers. Once we stop for customers, we will hear the sound of horn from BRT behind. On the other hand, the traffic police will fine us when we stop to carry passengers on the sides of road, because that will affect the normal operation of taxis. Thus, the special lane for BRT should be built on the middle of the road, so there will no conflict, and we go to our own way. There is no clash about the use of road between BRT and taxis."----An interview from second group on March 24, 2014.

### **3.1.6 The residents' understanding on the improvement of the traffic conditions in Urumqi.**

If we have to improve the traffic in Urumqi, what issue should be solved at first? After a questionnaire which is about the ideas of inhabitants to the sequencing

problem of what must be done first for improving the current traffic in Urumqi. The order from the residents who live in project areas is this: First, we should build and perfect the BRT lanes, accounting for 46.6%. Second, we should perfect the bus line, accounting for 32.9%. Third, to better the traffic management level, accounting for 22.7%. You can see the specific statistics from table 2-27, the result of which obviously coincides with the purpose of the project, and that also keeps consistent with the problems that residents mentioned on the interview. Thus we can know that the project construction is just what the people want.

**Table3-8 Residents Opinions: the Rank of Importance on the current Urumqi city traffic improvements (%)**

The measures of improvement	Increase and improve BRT line	Improve bus lane	Increase junction of park and shift	Buildurban road ( wide n、pave, etc.)	Set up Cycle lane	Improve the level of transportation management	Increase the number of taxi	Else	Sample Volume(pcs)
First	46.6	20.5	5.9	16.7	2.7	6.4	0.5	0.6	1542
Second	10.4	32.9	14.6	17.6	8.9	7.8	2.2	0.1	1459
Third	6.5	8.7	19.1	14	12.6	22.7	4.3	1.2	1375

In addition to the top of the 3 types of work needed to be resolved , some other work are also needed to be put on the agenda by government and relevant department of transportation:

**Speed up thereconstruction and construction of sub- branch roads.** Due to the constraint of geography, the deficiencies of road network are existed and the resources of North-South trunk road are limited in Urumqi. Setting BRT lanes for BRT4 in the Altai road, will further occupy road resources of cars. In the case of lacking alternative routes, this may cause more serious traffic jams. Therefore, in the process of planning BRT routes, BRT lines should also be fully considered whether the traffic conditions of parallel roads can meet the needs of part of car users on detour. It is necessary to make an appropriate renovation on the project and improve the traffic conditions of parallel roads, to ensure the travel demand of car user.

**Suggestions for the present traffic situationin Midong District.** Before Midong district is transferred, it called Miquan City. The transport facilities are here not equipped. Transport facilities, traffic signs, traffic lights and so on, compared with

those of Urumqi, are backward. So we advise to upgrade transport infrastructure, Electronic snapshot, red light camera, etc. must be taken into account. Midong district is at the intersection of urban and suburb and thus it's remote in terms of the geographical location. There are fewer cars and no bars in the middle of the urban road. A lot of motorcycles and tricycles freely turn around at the crossroads. Due to there are more migrant workers and more rural people, they have developed a habit of going through red light and do not have the awareness of safety. So we advise to increase the propaganda of traffic safety and cultivate good behavior norms of residents.

**Set up crossing facilities in special locations, such as the hospital that the elderly, the disabled are relatively concentrated.** At present, the overpasses facilities in our district is relatively mundane. Like in hospitals, the patients, the disabled and the elderly have a lot of special needs, so we can consider changing the overpass into elevator. Although the cost is higher, we must consider the special needs of special groups. It is also echoed that the public transportation project serves for the social benefits.

**Planning early and increasing the input to the east-west direction lines running through the city.** In current east-west direction area, such as eastern Hongguangshan residential circle and western Qimashan Mountain around, has formed a large mature residential circle. In the future, with the further development of the eastward extending and the westward expansion, BRT and other east-west lines construction is a people's livelihood event which in line with Urumqi further planning and development. whether for BRT6 branch lines or other crossing bus lines, it will be obvious on enhancing the city south-north transportation ability.

### **3.1.7 The residents' understanding on the improvement of the public transportation service.**

When asked how to improve Urumqi urban bus service, the most preferred choice of residents in project areas is increasing the number of buses, and then is improving bus management and service level, the third is optimizing bus lines. Furthermore, perfecting bus environment and facilities, setting up bike lanes and ameliorating bus station facilities are also mentioned. This shows that the public's requirements on promoting the bus level, adding the slow lane as well as improving the hardware facilities are raising continually, so the above should be taken seriously.

**Miss Pa, a 32-year-old Uygur woman who graduated from university, is a South Garden worker:** the government should improve the public traffic, when setting up BRT, they need to do a long-term planning, do preparation and survey work well and participate in more practice, because a city transportation is involved in the economic development of the city and the vital interests of the people. Before planning, well investigation and discussion are needed. The discussion should involve



multiple participation of bus driver, the general public, experts, transport sector and so on; various views are more useful rather than planning and designing public transport lines in accordance with the ideas of some people who stay in office every day. If conditions permit, we should set up bike lanes, so as to diversify the urban traffic. — The second interview transcript on March 15, 2014.

**Mr. Zhang, 77years old, Autonomous Business Administration Cadre Institute, retired**, he said: I think the bus service still needs improving. Although not very common, but sometimes I also met some bus drivers whose attitude was really bad. I remember once I when I took a bus to Tumor Hospital, I saw a 60-year-old woman with some vegetables in her hand ascending the bus. Before she stand steadily, the driver started the car, as a result, the old woman fell down. — The fifth interview transcript on March 22, 2014.

**Table3-9 The sequencing importance of the residents' view on the aspects needed improving in Urumqi city bus service. (including BRT). (%)**

Improvement measures	Increasing buses	Setting up bike lanes	Perfecting bus environment and facilities	Improving bus management and service level	Ameliorating bus station facilities	Optimizing bus lines	others	Sample number
The most important	<b>47.2</b>	7.5	6.5	13.6	3	21.7	0.5	1542
The second important	11.2	17.1	15.2	<b>20</b>	16.1	14.2	0.3	1453
The third important	6.2	9.8	12.8	15.4	14.6	<b>28</b>	1.3	1357

## **3.2 The general understanding of the influenced of the project.**

### **3.2.1 The influenced people's understanding and their methods of the project.**

Different groups have different understanding levels and approaches towards the

project. The seniors mainly know through traditional media, and they are sure of the advantages of BRT and the special help for the elderly, mainly in convenience, greenhouses, and no burden to get on and off. In some low-income vulnerable groups intensive districts, such as new urban Weixing Road communities, there are a lot of old people: there are over 4971 people in the community, but more than 858 people are over 65-year-old, aging seriously. Limited economic conditions make the elder people's demand for public transport increase, and many old people were very excited to hear that the government is going to construct BRT 6, and they think the project is for the real benefits of people.

**Yin Chengxiao, male, the Han nationality, 70-year-old, University degree, a retired lawyer (resident):** I learned this project from Urumqi Evening News. Building roads is a good thing, which is convenient for residents to travel, especially for those old people who are retired. It is convenient for the elderly to see a doctor, buy food, go out to handle affairs, and go to children houses. -March 20, 2014, the first group interview transcript.

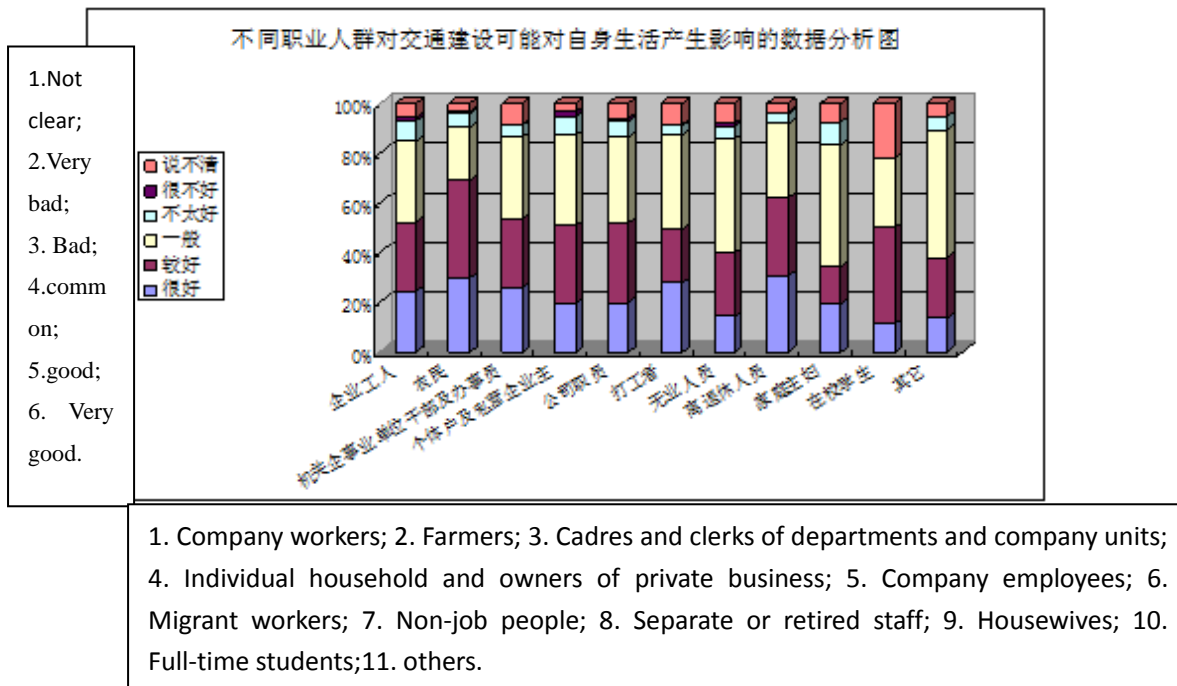
**Aili, male, 72- year- old, Uyгур, bachelor's degree, retired teacher of Geology Department:** it is easier to go up and down the BRT, the door is flat, no steps, it's easy to get up and down . it is inconvenient for our senior to get on and off, several steps near the bus door, for young people is a piece of cake, but we senior can't manage to do so. ----March 23, 2014, the first group interview transcript.

Outsiders' understanding of the project is limited, they didn't know the specific lines until the propaganda of research group made some publicity.

**Huang Zonghong, male, Han nationality, 30 -year- old, people of Fujian province, high school degree, owner of Parkson furniture shop at Altay Road NO. 1475:** there are totally 6 clerks in our store, they are all migrant workers, and we run ceramic tile business. We never heard of this project before you come, but I think it's a good thing, I am in support and advocacy. We all have our own cars, but it is convenient and fast to take BRT to the town. ----March 20, 2014, the first group interview transcripts

### **3.2.2 The influenced people's understanding and their attitudes towards the project.**

When people were asked what influences the project brought to them, the number of people thinking it is very good, accounting 24.3%, better take the proportion of 28.1% and general take the proportion of 34.8%. There are 5.6% of residents thinking it is not good and the proportion of 0.9% think it is very bad, but there are few. From statistics , most residents hope the project can be started as soon as possible. From the statistics analyst chart, except for jobless people and housewives, the number of people from other occupations thinking it is very good and better both take more than half of proportion.



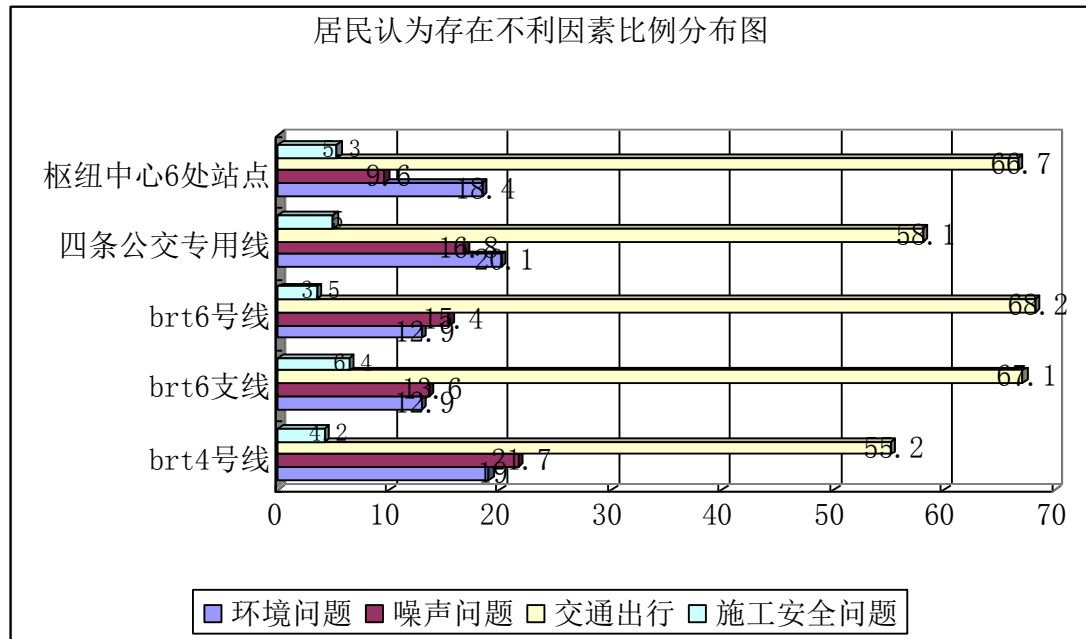
**Diagram 3-3 the Statistics Analyst Diagram about Different Occupation populations' Attitudes towards the Influence of Transportation Construction to Their Life.**

Although most people think that transportation construction contributes to their life in the long run, there are some bad effects on resident's life in some extent during the period of construction. In the light of project route, 81.8% of the residents living along the BRT line think there will be bad effects because Altay road, Xinhua south road and the Big and Small West Gate are in the city center area, there are many residential areas, shops, and large units along both sides of them. Once be under construction, there will be large influence on residents' life. In the next place it is about residents living in the BRT6 along the line. About 71.85% think there will bring about bad effects. BRT6 line is the main road of going to Urumqi from Midong and the route is passing the main area of the old city in Midong. The road in the old city is narrow. If related departments start building BRT, there will be huge inconvenience on residents' going out. The number of people affected by the remaining routes also think there are will be negative effects accounts for more than 60%.

**Table3-10 The analyst table about influenced people's opinions of whether the project causes bad effects.**

	Yes	No	Sample Number (A)
BRT4 line	81.8	18.2	412
BRT6 branch line	69.3	30.7	202
BRT6 line	71.8	28.2	280
Six Sites in Shoumo,Shuniu,and Tingbaochang	63.1	36.9	179
Summation	70.9	29.1	1542

Residents believe the main disadvantages the project brought to their life are the following four points: environmental issues, construction safety issues, traffic issues and noise issues. The samples who believed that the greatest impact is on transportation accounts for 61.1% of the total sample, mainly reflected the possible travel difficulties during the project construction. With the higher degree of awareness about environmental concerns, the piling up of construction dust and solid waste is the concern of people living in affected areas, accounting for 17.4% of the total sample. Those who think the noise impact of nighttime construction on the surrounding households is the main problem, accounts for 16.9%. Finally, there is some safety problems during construction of the project, which is very small, only 4.7%. In terms of the different lines of the project, residents are consistent with each other on the existing unfavorable factors, mostly focused on transportation issues.



1.environmental issues; 2. noise issues; 3. traffic issues; 4. construction safety issues

**Diagram 3-4 The analysis diagram of the residents' views on the major unfavorable factors of the project development .**

In terms of the sequencing of the possible specific factors of the traffic issues which the residents focused on, the most intensive one is work, which is the first in order, with the proportion of 68%. followed by sending the child to school, is 33.4%, for in the present shrinking family structure, there is generally only one child in the family, so the daily school run is a must. The percentage of seeing the doctor and shopping is almost the same, almost in the third place. During road construction, the inaccessibility of roads may also have some effects on the Muslims praying in the mosque. From the research experience, we can found that people who go to the mosque are mostly the elderly, so the road traffic during construction will bring greater difficulties for the elder.

**Table 3-11 The sorting analysis table on the possible influences brought by the road construction to the residents(%)**

order	workin g	shoppi ng	send kids to school	see a doctor	go to the mosqu e	no influen ce	hard to say	others	sample size
first	68	7	12.8	3.8	0.8	5.1	2.1	0.2	1542
second	8.8	26.7	33.4	13.4	1.3	0.3	2.7	0.4	1335
third	3.3	18	14.2	26.1	1.8	0.8	6.9	1.8	1124

The construction of roads in city has an influence on residents' trip to some extent, the influence on business shops along the road cannot be neglected either. The economic benefits of some shops used to be affected by the infrastructure construction of government, but most of the shop owners understand it. They think it will be more convenient and the business will be flourishing after finishing the infrastructure construction. What they only expect is to shorten the construction period to reduce impacts as possible as they can.

**Chen Yanhua, a 50-year-old Han nationality women, who used to be an junior college students, now is the general manager of the agency of the Shanghai Longyang machinery factory located on Jinshan community of Sinkiang,** said: The facade room is rent, I have to pay one hundred thousand per year, there are 6,7 employees living in Miquan, Nanhu and Tianjin road. I have no business the whole year, once the construction of BRT is finished, the regular customer won't come, no one have access to it at that time. I have to pay rent and salary, we sign a contract with landlord once a year. If the government starts to repair roads, our business will be affected and we must move away. We all hope that they can shorten the construction period as soon as they can to reduce the influence on business along the roads.----  
March 20, 2014, the first group interview transcripts

Though the majority of people think the project may have negative impact on our life, the residents of Urumqi are highly understand the project. 42.8% of the samples think this project is good to the development of city, they are faithful supporters. 34% of the residents think though this project make their life inconvenient, they can endure and overcome it as much as they can. They welcome this project and affirm and support it very much from the overall attitude of residents. No.6 BRT branch is praised by many people as the route of traverses in Urumqi. 54% of the people support the project.

**GuLijiahan, a 78-year-old Kazak nationality women, who graduated from primary school, living in ShiJiHuaYuan on the community of Altay road,** said: I

have lived there for 29 years, it is very inconvenient to go out because of the dramatic increased population. My granddaughter studies at the second middle school of Urumqi. She starts at 8 o'clock every morning, taking bus from timber mill to Changji, then taking no.7 bus from Xihong road to school. It is very inconvenient. If the construction of no.4 BRT finished, it will be fast and convenient, there is no need changing bus. In recent 10 years, the development of Urumqi is very rapid ,more than ten years ago, the family district of timber mill were purchased by metro property and were changed into the present Shijihuayuan residential area. Big residential areas like Madrid, Hengda and some other unknown ones also mushroomed. In a word, there is a very large amount of traffic flow, so the construction of BRT4 is very necessary. ---March 17, 2014, the first group interview transcripts

Table 3-12 the analysis of the residents' attitudes on the possible inconvenience brought by the project construction. (%)

	Beneficial to the city's development, support	Although inconvenient,can overcome and endure	Try to reduce the bad effects on the residents' going out during construction	Construt roads every year, really boring	Number of samples
BRT4 line	43.2	31.8	16.0	9.0	412
BRT6 branch line	54.0	33.7	8.4	4.0	202
BRT6 line	37.6	38.7	16.1	7.5	279
4 bus-only lanes	41.2	32.8	16.6	9.4	469
6 terminals and hubs	41.9	38.5	15.1	4.5	179
Add up	42.8	34.4	15.1	7.7	1541

It can be seen from the residents' attitudes towards the traffic improvement project in the charge of the government that the citizens are enthusiastic to the project, with 56.2% of them think that it's a good project, and hope it can been started quickly. there are many traffic improvement projects in recent years, and 40.9% of the residents suggest to the government that hope to listen to the public and construct

after full preparation. The research group also sensed the residents' ownership is increasing during their research, for almost none expressed that "it has little influence on us" or "don't do it, for it does no good to us." Many citizens think highly of the social assessment, and hope that the government can take more scientific research methods like this to listen to the public, to understand the people, and work together for a better Urumqi.

**Table 3-13 the analysis of the residents' attitude towards the project. (%)**

	Very welcome, hope to start quickly	Listen to the public and start it after full preparation	It has little influence on us	don't do it, for it does no good to us	Not clear	others	Number of samples
BRT4 line	57.8	38.8	1.0	1.7	0.7	0	412
BRT6 branch line	66.3	31.7	1.0	0	1.0	0	202
BRT6 line	55.7	42.9	0.7	0.7	0	0	280
4 bus-only lanes	49.9	47.1	1.7	0.2	1.1	0	469
6 terminals and hubs	58.1	36.9	1.7	2.2	0.6	0.6	179
Add up	56.2	40.9	1.2	0.9	0.7	0.1	1542

From the collected interview data, we can draw the same conclusion that most community residents within the project area support and understand its construction, but there are also some residents who hope the project construction can make overall coordination, striving to minimize impact on the residents going out, and avoid building roads every year.

Ms laurel, female, Han nationality, 43 years old, junior college, community worker: **Certainly I support the project, because taking BRT is convenient and time-saving, and it is very popular among the residents. The process of Construction is bound to affect the surrounding residents' travel, but after finishing the BRT project, it can not only save time for passengers but also safe and comfortable for us. We can understand it.**

For the proposed 3 BRT lines, the public's attitude in general is positive. But there is no denying that there are still some residents putting forward their own opinions and ideas, meanwhile some residents hold a neutral attitude, they both admit



the advantages of BRT, also pointed out the deficiency of the building BRT. Some different views on building BRT lines are mainly concentrated on the following aspects:

- Aggravating road congestion.

Mr. Wang, the Han nationality, male, age 40, the individual: **I don't approve of building BRT4 line project. Now the road traffic is unobstructed, once started to build BRT, which need to at least four lanes , that the available space for other cars will be more narrow, which will make things worse. Especially the Altay road and Yingbin road, they are very narrow. - on March 17, 2014, the first group**

- BRT is not so convenient as buses, in and out of the BRT station is very troublesome

Ms Yang, female, Hui nationality, 56 years old, high school, an owner of Xinyu store at Bayi street of Museum Community: **I think there is no need to build the BRT, buses is more convenient than BRT, in and out of the station is not convenient, it's very far, really troublesome.The road occupation of BRT is broad, if widen the road more, there will be no sidewalks, it's not human-based. ----Written record - on March 22, 2014**

- BRT only works during the rush hours

Chen Xinzhaoh, male, Han nationality, 59 years old, high school, a retired worker in BaYi street of Museum community : **people who take the BRT are mainly work people. There are a lot of people swarming into BRT during the rush hours, but after the peak, around noon time some lines of BRT are empty. And BRT only provided benefits for most work people but not most of us, furthermore, the station is too far away, so I prefer to choose bus which is more convenient for me, and in my opinion, the construction of BRT is a waste of resources. - on March 22, 2014, the first set of the record**

- Develop subway and chronic system, designate bus lines to reduce traffic congestion

**Mr. Wang ,a 60-year-old Han nationality college school teacher ,** said: the BRT is eliminate in mainland, it was demolished in Guangzhou. Why we construct it in Sinkiang? The No.5 BRT is laying idle now, it all serves for officials and their family members, which from the City Council to its departments and Qimashan mountain department. The Altay road is already very narrow, not to mention after the construction of BRT. How about the nearby pavement? Now we all advocate less pollution, less driving. How about cycle way? There is no pavement at all. I suggest that we should build more cycle ways and pavements, now most families own private cars, it is no use constructing BRT. It seems that government subsidizing all the time ,the phenomenon of pavement imbalance is existed, and the BRT also keeping operating, actually there are few people in such a big vehicle in non rush hour. It is

totally a kind of resource waste. No company is unwilling to do such a business because it is non-profitable. I think we should set bus lines in Altay roads, improve the driving level, add more buses, restrict public vehicles' occupying the bus roads in rush hour, allow some vehicles to use bus roads.——the interview transcription of the first group.

Those citizens who hold neutral attitude all show satisfaction to the hardware of BRT, but they also mention the difficulties and inconvenience in operating the BRT, such as it is inconvenient for passengers to come or leave station, the lack of routes, over occupying ground area.

**Wang Xiuzhen, a 76-year-old Hui nationality, a retired worker who is graduated from primary school.** We still welcome to the construction of BRT. Since I am already old, to be honest, I still prefer bus, I can take bus to go anywhere I want. On the one hand, the big intervals between each BRT sites is big, it is inconvenient to come and leave station, and it is difficult to change routes. On the other hand, there are warm houses in winter and air-condition in summer. The most important thing is the idea of majority residents, so generally speaking I am in favor of the project.

### **3.2.3 The Overall View about the Integrated Traffic Information Platform**

The integrated traffic information platform, guided by “one main platform, three subsystems, four integrated application platforms, ten key developing directions”, and aimed at building a municipal traffic information statistics center, is to construct the Urumqi city integrated transportation information platform, and enable the resources of the city traffic information gathering, sharing and exchange, to achieve comprehensive control and development trend of dynamic traffic data, to predict comprehensive support and information service development.

Transportation integrated information management platform needs to collect public security traffic police, road construction, urban management, transportation and highway, aviation, railway departments such as business system of traffic information resources, and the information processing, integration, storage, transport business data gathering and management. Types of information demand of related departments and their functions are shown in Table 2-33.

Urumqi city intelligent transportation system planning (2014-2020),

The first stage (2013-2015) : to basically complete the operating system of the intelligent transportation system.

The second stage (2016-2020) : to realize the intelligent operation and fine management of the integrated transportation information center of the integrated information management platform .

Development goal: by 2018, to build an integrated traffic information platform which can meet the needs of the modern intelligent transportation, and have the national leading and demonstrative significance to realize the traffic information resource sharing, to provide comprehensive and systematic support to Urumqi transportation decision-making, management and services, to strengthen the support to the management of transportation business., to smooth the intelligence business cooperation to promote the public travel information service, to make it more convenient for people to travel, to build the city intelligent transportation standardization of systems and mechanisms, to develop the intelligent transportation system standardization in Urumqi, to preliminarily cultivate the intelligent transportation industry and make the development of intelligent transportation more dynamic.

Specific goal: to build intelligent transportation information platform, which integrates civil aviation, railways, passenger transportation, rail, high-speed rail, bus and passenger logistics transport. To realize the traffic resource information collection, analysis, processing, sharing, management and service, etc. To perfect the integrated transportation infrastructure database construction, to realize the comprehensive situational awareness, scheduling, and early warning of the key traffic facilities such as city road, subway, vehicles, yard, etc, to provide people with convenient and efficient transfer and transportation query, etc. To improve the public security traffic intelligent management system, to improve the traffic signal control, illegal surveillance and traffic induced the coordinated command level and efficiency of work. Set up the city's parking management services platform, improve parking guidance system, realize the main urban public parking lots and the static and dynamic monitoring management of roadside parking lot, perfect "all-in-one-card" coverage area, preliminarily complete the regular bus, BRT, rail transit, taxi and parking management applications such as high-speed and intercity passenger website construction, realize the online booking, online payment, traffic queries, complaints, suggestions, etc.

**Fan Jianwei (male, Han nationality, 36, Urumqi city traffic police detachment in research, university degree, deputy director of the research institute) :** I think it is a good thing to construct a platform to manage transportation integrated information. Such a high level platform, not only brings together systematic information, including traffic, road construction, urban management and land-sea-air information, but also provides a platform of sharing and communicating with each other as well as invoking, this is also our current application requirements. For it, we are fully supportive.

BRT and private cars are closely linked. They influence each other, so there must be interference. We gathered possible information and mastered the congestion situation, to whether the congested road is feasible to construct BRT and whether it can cause congestion, whether it can provide data support, or whether it can maintain close contact with the research center.

The integration and application of intelligent traffic information system is our tube. The system must be established in line with road construction, rather blindly. Only needs can produce supportive demands. To construct the system, we should collect more information to provide better services for the road planning and road construction.

Our duty in the construction of traffic comprehensive management information platform is to cooperate and support. On the view of traffic management, what we need is sharing the data with other departments after the information collected to the platform, and submit our requirements to let them help us in research, this can also provide reference for government decision-making. The construction of transportation integrated information management platform needs external field equipment information collection from a higher level, each sub-department should gather information together to provide decision analysis in higher levels.

Existing problem is that we have our own data application standard, but we don't know whether this standard can satisfy other departments or whether other departments' standard can satisfy us. In the process of transportation integrated information management platform construction, all people should coordinate and distribute their work well. The sharing and integration of the consolidated data should fully meet the needs of us and other departments. Each department should comply with coordination, and the data provided by other departments must meet the needs of the traffic police department.

**Zhang Ming**, secretary of the Urumqi urban comprehensive transportation project research center: intelligent information platform is an intelligent data center which analyzes and studies the traffic data collected from all sides, and then feedback to each unit to use. Under secondary platform—— the traffic police command center, transport command platform (including bus companies, taxi company data and Hongshan one-card). With GPS and probes on each bus, the bus company can understand the operation, the running time, the passenger situation and the traffic jam of buses, and then have an analysis, in order to dispatch vehicles better. All of the data can be collected to our research center and it forms to be a data packet. Next, data should be covered all of the buses and BRT. Electronic bus stops should be set up in BRT station, to display the distance, the degree of passenger and the running time of the next bus, so that passengers choose to take.

The ordinary buses have no electronic board. So the next step of work should be prepared, that will make things convenient for passengers, and they will have a good idea of time. Every section should install the detection system, which can issue driving information of sections. At present, the intelligent information platform is under construction in Urumqi. And the intelligent information platform also has two secondary platforms, those are airport information platform and high-speed rail one. The platforms are interconnected, and can share information with each other. The

transportation intelligent information platform is being built.

**Table 3-14 he demands of information type and functions of relevant departments of integrated information platform for traffic management**

industries involved	categories of information	types of information	demands of information	functions
traffic police	information of people and things	basic data, historical data	proportion of people and things, OD, travel behavior, travel characteristic, trip chain, driving characteristic, etc	the secondary platforms should be brought into play, to provide and perfect the traffic information, to achieve the exchange of information.
	information of vehicles	basic data	types of vehicles, proportion, property, condition, purpose, identification, etc	
	information of traffic flow	real-time data, historical data	flow, including pedestrian flow and passenger flow	
			information of traffic flow, including the basic parameter of microscopic and macroscopic traffic flow, etc	
	information of traffic control	basic data, real-time data	goods flow, categories of goods, volume of cargo, etc	
construction committee and urban management committee	information of transport facilities	basic data	policies and regulations, traffic control, etc	providing data support to assistant decision
	information of traffic environment	historical data, real-time data	types of traffic facilities, proportion, characteristic, condition, location, route, construction, disaster, etc	
national development and reform commission, construction committee	information of traffic energy	basic data	traffic pollution, ecology of traffic, climate, etc	providing data support to assistant decision
related supervising organization	traffic information associated	basic data, real-time data, historical data	types of energy, feature, proportion, price, energy policy, etc	providing data support to assistant decision
			urban planning, land utilization, economic development, social mentality, line of business, tourism service, holiday arrangement, large-scale activities, special events, fire control and medical treatment, etc	

## **4. The affected people's views and suggestions on the project**

### **4.1 Relevant opinions and suggestions of the influenced people towards the project.**

#### **4.1.1 Suggestions of the influenced for the project implementation.**

The expectations and suggestions to the project implementation relate to various aspects, and residents along the different lines of BRT have different expectations and appeals.

##### **The main suggestions of residents along BRT4 lines:**

●**Hope the municipality can coordinate the three in one construction of BRT in Altai road.** From the results of the survey in terms of traffic volume, after BRT1 line opened, part of car users changed their habitual driving route, transferred to adjacent parallel road, that is, Altai road to avoid possible traffic jam along the BRT. At present, the traffic in Altai road is very heavy and the driving conditions are daunting, with the outstanding features of the narrow road, poor road conditions, the obsolescence of underground pipeline, poor drainage system, few overpasses and slippery in winter, sidewalk parking problem, etc. Most residents along the line suggest: The roof ceiling of the overpass should be built to prevent slipperiness, make it suitable for the elderly to walk on. The reconstruction of surface road, the replacement of underground pipeline and the construction of BRT for Altai road should be coordinated into one. In this way can we not only save resources and funds but also affect the traffic only once. To widen the Altai road, but want to keep the sidewalk and no parking is allowed on the sidewalk.

**Water Industry Group in Urumqi, Ouyang Changlei, male, Han nationality, 36 years old, bachelor's degree, Vice Minister of Safety Production Dispatching Management Center:** The underground pipeline of Altai road which has been built for more than 20 years, since 1990's, with the length of 6 km, is aging seriously. But the road has not been constructed or renovated ever since, so there is no way to transform the underground pipe network. If we transform this road, it will have a great

impact on the traffic. Because the transformation needs a large excavation, moreover the road itself is very crowded. It is a very troublesome problem, and is currently a prominent problem. We have repeatedly given suggestions to the government, hope reconstructions could be carried out on Altai road, and then we can also do the underground pipe network transformation, but it had no results. In recent years Beijing Road, Youhao road, Yingbin Road and Taiyuan Road all had a big transformation, underground pipeline of these roads were also transformed.—on March 13, 2014, the first group

● **Rebuilt overpass or underpass in northwest road of Xinjiang University north campus gate, and no parking is allowed on the sidewalk.** Between the east and the west of Xinjiang University north campus is the north-west road, the school itself used to build an overpass but last year because of the earthquake, cracks began to appear in the road, so it was demolished. Now depending on the traffic lights to cross the road so during the period of class time, recess time and lunchtime, there are hundreds of students crossing the road. Therefore, it has a large impact on traffic. Meanwhile, there are people not only driving car, but also parking car on both sides of the sidewalk of the school. Residents have the idea that there are security risks for college students and children in kindergarten. The students and the surrounding residents suggest: move the auto street to the suburbs and rebuild overpass or underpass. Hope that parking cars are forbidden on sidewalks.

**Ay Noor, a Kazakhs Altay girl, was admitted to Xinjiang University in 2012 and majors in social work:** Altay Road is narrow and the traffic is heavy, it is very inconvenient for us to have classes, across the road from East campus to West campus. Originally, there was a flyover which was demolished due to security problems caused by cracking. We hope that an overpass or underpass could be built, because the present street lights time is too short, we only have a little time to cross the road when we have classed in morning, between classes and after classes. — The first interview transcript on March 22, 2014.

● **We should set up the site beside timber mill and dismantle the garage under the viaduct.** Because the timber mill is a hub that getting through the way from Urumqi to Changji, cars from Changji all reverse at the timber mill station where is the first stop for those cars. The traffic condition at the timber mill intersection is not good. Under the viaduct, there was a decade-long garage which spoiled the cityscape due to badly damage, and is not conducive to public travel. If you want to cross the street, either detour or traverse the road.

● **We should construct the overpass at the BRT1 line terminus.** Machinery Factory is the terminus of BRT1 line and a bigish crossroad. But the greatest problem here is that there are no overpasses or underpasses. If all people crossing the road, it will affect the vehicle passing. I suggest building overpass or underpass here.

● **We should extend the Zhongya South Road and change it to be dual**

**carriageway, and concern the safe trip of nearby Forestry Department sub school students.** Although there are underpasses, but the position is unreasonable, quite far. Pedestrians are basically across the street to take a bus, there is a big security risk. Out the Forestry Department sub school gate is a road, there are no any safety facilities, such as signal lamps, deceleration strips, zebra crossings, etc. The security is a great problem. Residents suggest changing the Central Asia South Road to be dual carriageway and extending it as well as setting up crossing facilities at the Forestry Department sub school doorway. The stations at the Petroleum Transport Company and Back Shop are too close, which influence the transport. I suggest removing the Back Shop station under the overpass.

**Principal Fu, a 39-year-old Han woman and a master of education graduate, is the headmistress of Xinjiang Forestry Department sub school:** in the past, the Zhongya South Road was dual carriageway, after changed to a one-way street is not convenient. In winter, the buses at the gas station are lined up to the school gate. I am afraid that BRT construction is not possible if the road is not widened. Children down (toward the development zone direction), there are no vehicle, just on foot. The junction at Caimen is a T-junction with large traffic flow and many accidents. A teacher of our school was killed there. It's dangerous for students to cross the road there. — The first interview transcript on March 24, 2014.

● **Broaden the Yingbin Road as well as construct guardrails in the middle of the roads.** Yingbin Road is characterized by: narrow road, heavy traffic and 5 gas stations along the road. The intersection of Taiyuan Road and Yingbin Road and the intersection of Shanghai Road and Yingbin Road are crowded and the bends are dangerous, they are the accident-prone sections. Residents suggest widening roads, adding guardrails in the middle of the roads, constructing overpasses and underpasses and reserving green belt on both sides of the roads.

**Ms. Li, female, the Han nationality, 24 years old, junior high school degree, the owner of the future discount supermarket at the entrance of Yingbinlishe community in the Development Zone Yingbin bridge community:** car flow there is relatively large, it is inconvenient to cross the street, and sometimes the car driver does not let a person go first, no signal at the entrance of the community, which is a safety concerns. In front of my store the road is relatively narrow, often occurs crash there. It is inconvenient to ride a bus. I often take No.27, No.202 to the machinery factory to transfer and then take the BRT to the downtown. At Tianshan district urban area, part of the BRT lines are narrow, BRT can only share driveway with the social vehicles, we have no way to set up the special-purpose road, and which cannot reflect the quick advantages of buses, so we hoped that the government can carefully consider whether BRT must be built. The Tianshan district is an urban area, and it is also the main business district of Urumqi, with narrow roads, large passenger capacity, and heavy traffic. At the North-south Xinhua road and part of the Big and Small West Gate, roads are usually narrow, especially the part of the Big and Small West Gate, it is the important business district, the passenger flow is large, the floating population



is also large, all sizes of mall are concentrated there (30 big commercial malls are over there), the majority of inhabitants are businessmen, they have their own private vehicle, it is inconvenient to have no car, we pull goods with vehicles, there are some larger malls doing wholesale such as Cloth Market and Western Contemporary Mall, and Success Square for lower-income consumers, Danlu Shopping Center for higher-income people, which does the brand business. Many consumers drive their private cars, also some people take the illegal vehicle or taxi, the traffic flow is large, the passenger flow is also large, but the road is very narrow and here is old city area, it is impossible to widen road, the construction of BRT may increase the pressure of ground traffic. In the investigation and study, many inhabitants and merchant thought there is no need to build BRT, the traffic jams problem will be prominent and serious after occupying the two-way driveway. Many people thought the subway at North Xinhua Road is the most appropriate one, for it solves the heavy traffic problems of the road, and it is inappropriate to construct BRT. When the North Xinhua Road Democratic Road Community, the Xihu Street Southern Community, the Big and Small West Gate management Committee as well as the Victory Road sub district office launches the symposium, all community cadre present opposed to build BRT in this road section. The reasons can be concluded as the following points:

- Affect the interests of the surrounding businessmen, and do no good to business.
- It is of big pressure and high pay to maintain stability.
- If we extend the road to build BRT, it will lead to conflicts between BRT lines and public parking on both sides in downtown.
- It is better to set the BRT sites between the Big and Small West Gate at the south of the Big West Gate.

● May have influence on green belt and pavement. If occupying the pavement, the space of restaurants, markets and the public area in front of residents' houses will have to be reduced, which would affect the business of people who have store front. While if not set up BRT, the Big West gate and the Small West gate will become more crowded.

● The stream of people and traffic flow are huge in the Big West gate and the Small West gate, which increases the pressure of maintaining society stability. In the light of general situation of society stability in Urumqi at present, the safe operation of BRT is the most important thing for all of citizens in Urumqi. Once emergency happens, the road will be blocked, people can not be evacuated, police, police cars and fire brigade are impossible to arrive at the scene in time. If we set up BRT, as for the society stability and the risk of traffic, the situation will become worse.

● Mr. Bao, Mongol, male, 40 years old, undergraduate, the community police in Honqi Road: There was a conflict between a consumer and a shoes seller in Success Square in May, 2010. At that time, the road was filled with shoes. The street was crowded with people. And the police cars were blocked. The public security was a mess during that period.---The interview of second group on March 27<sup>th</sup>, 2014

●The starting point of BRT stations at passenger station in southern suburbs should be set up as close to passenger station as possible. Thanks to more than half of passengers at passenger station are going to take the unlicensed cab. There are two troubles if station is far away from passenger station. One is that it is convenient for passengers to take buses. Another is that it will increase the phenomenon of taking illegal buses which passengers who have lots of luggage have to take. This is the outstanding issue at present. So, it is suitable to suggest setting up stations of passenger station around restaurants which near the passenger station in southern suburbs.

●Most residents reflect that it is not suitable to set up BRT in Yingawati Road. The road is narrow and has a bridge. It is also the section of entering Hetan expressway. All vehicles from the direction of Big West gate, district hospital and Tuanjie Road will gather under the Tuanjie Road. It may cause traffic jam in southern direction. There are also production departments such as plastic factory, flour mill and schools like the Thirtieth Middle School. Many traffic accidents has happened in this road since the year of 2012.

#### **The main suggestions from residents who live along the line of BRT6:**

●**Connect BRT6 with other BRT lines directly and let citizens in Miquan city have chance to enter the downtown directly.** Residents along the BRT6 in the project area hope that the line of BRT6 can be connected with other lines, then they can go to other places in Urumqi by changing buses without going out station.

●**Suggest broadening the road, because the station near passenger station in northern suburbs is too crowded.** There are eight or ten bus lines which will go through the bus station around passenger station in northern suburbs. There are two traffic lights in front and at the back of bus station. What's more, there are narrow road and green belt. The amount of vehicles from the Qiqao Bay and Hongguang Mountain have boomed since the road between Qidao Bay and Hongguang Mountain opened, which causes the high pressure of traffic. Therefore, suggesting shunting the traffic in the direction of Qidao Bay and Hongguang Mountain and extending the passing time of traffic lights in the direction of South-North and turning left in the crossing where SuZhou Road and North NanHu Road meet together.

●**Not change the driven route of No.906 bus during the period of the road repairing.** No. 906 bus is the passenger security of the drivers who sent to 102 Regiment. In the past, when building the road it occurred that the buses didn't get into the north passenger station, and passengers chose to set out from other passenger station, so the regular bus drivers' economic income had been influenced badly.

●**Set up the crossing facilities in the intersection crossroads of the east of Kashgar and the south of Mi Dong road.** Mi Dong road is very wide and the speed of cars are quick, but the line sections so far only have four lanes, there are too much traffic and already come into being a bottleneck, and traffic accidents often occur there, so we suggest adding crossing facilities. But the reply of relevant departments

say it's national high way, so it can neither build bridges nor set up decelerating belt. We hope the government will focus on the problem and find a reasonable resolution.

●**Suggest setting a traffic light in each of Xiang He bay home crossing and ErGang farmer's market.** The two crossings are crowded areas, there are many office workers, students from Jiangongshi 4<sup>th</sup> and 79 middle school, now for the lack of traffic lights and crossing facilities, young people are afraid of crossing the road, not to mention the elderly.

●**Suggest constructing the crossing bridge or underground passage at Bajiahu and Kazi Bay as early as possible.** At present the development of Bajiahu is very fast, around it are a finance street, Greentown lily office-bearer residential area and so on which has been almost finished. Kazi bay cement plant district also build many new business residential areas, so it should fully consider the old people's travel characteristics, to suggest building the crossing facilities in advance, to avoid adding relevant facilities after traffic jams and influence people's formal life.

●**Suggest setting up temporary station in KaZi bay during the project construction to shunt vehicles .** The cars in northern suburbs station sent to Fu Kang, Jimusar, Mu lei and Qita all need to pass by KaZiBay. From every Marches to Septembers, there are many migrant workers from railway station, they either take the No.906 bus or in the mini bus to northern suburbs station to take a bus. If it's inconvenient for passengers to come to northern suburbs station, it's better set up a temporary station in KaZi bay for the running cars of the northern suburbs station, and then passengers can wait for bus at KaZi Bay.

●**Suggest setting up station between cement mill station and LiaoYuan Street station.** De KongErGang community is an aging community, at the same time ,it is also a community which has more people who live a difficult life or the vulnerable group. Its aging population has reached 23.3% and the number of the minimum living standard people is 360. In terms of the station setting, we suggest setting stations between the cement mill station and LiaoYuan Street station for the convenience of the elderly.

●**Suggest setting up temporary station or traffic guidance sign in time .** During the construction, temporary stations or traffic guidance signs should be set up in time at the surrounding of BeiJiao station, Mi Dong station, school (chemical engineering school , Jiangongshi 4<sup>th</sup> middle school, 84th middle school and so on ), for the sake of the crowd evacuation in the people concentrated area.

**The major suggestions put forward by the residents living along the branch line of BRT6:**

●**Suggest making the exits and entrances of BRT linked the underpass to the slot of BRT site like the operational approach of No.1 Friendliness station.** In this way, the passenger and the ground traffic would not interfered with each other, not only meet the BRT demand, but also satisfy the citizens' need of crossing the streets.

●**Reduce the seat design for BRT in real demand.** Many citizens proposed that the back of bus have seats in both sides but the middle is too limited to stand, it is crowded when people get on or off the bus. We can design a few seats because of the clear streets of BRT.

●**Put up highway overpass or underpass at the intersection of the railway station site.** It is crowded there, there are many people waiting for crossing the streets. On account of the regulation, there is no red light when drivers turn right, we can't ensure the safety of the pedestrians when they cross the streets in the crowds. The drivers had to slow down to avoid traffic accidents. In this way we suggest constructing the crossing facilities to keep pedestrians safe.

●**Broaden Songshan Road.** It is the only passage from development area to upper west side. But it was narrowed and only has two lanes. The distance of road is less than one kilometers. Both sides of the road still have space to broaden, it is no necessary to demolish nearby buildings. The locals think that it is necessary to broaden the Songshan Road.

●**The bus should be opened to traffic in BeiWei 3<sup>rd</sup> Road.** It is a strong desire and expectation for area residents. There is no running bus in this road at present, it is inconvenient for residents to go out. They are satisfied if there is any bus.

●**Adjust BRT6 branch line at the site of railway station.** It is suggested that BRT can begin with the west road of Hebei when it starts from west to south. In this way can we enable the ease of movement and release the pressure of the two major sites (Er Gong, railway station)for changing direction.

●**Suggest reducing the limitation on BRT about the traffic lights in the non-main roads.** People think that the faster the BRT, the more likely the advantage of urban public traffic can be made full use of. Only in this way can we reduce the conflict of right-of-way. Only strengthen the power of public transit, can we accomplish the goal of “letting the bus first and leading a environmentally-friendly trip”.

●**Prepare for the preliminary planning and design for isolated stretch of road in advance.** To plan the city development with the idea of traffic priority. We all witnessed the developing speed of the northern area, and we all think it equipped with good traffic roads condition. Build roads in advance to avoid the increasing number of residents proposing to rebuild roads. Not only influence the living of residents, but also increase the costs of construction.

●**Increase the green area of roads.** The green area of Urumqi is limited, we should fully consider to reserve the present green area rather than demolishing it when we construct the branch of BRT6.

●**Construct BRT on the viaduct not the ground.** Many citizens agree with the pattern of Xiamen, especially the owner of private cars. In the recent years, the area along the BRT6 branch line has been developed into a business residential community, so many families here possess private cars, and thus they are in favor of learning from Xiamen mode to relieve the traffic congestion here.

●**Extend BRT6 branch line to Bagang.** Bagang locates between Urumqi and Changji. Now, two schools-Xinjiang Modern Vocational and Technical College and

Urumqi Vocational University have already moved in with more and more students. Besides, there are newly developed housing estate like nature ideal cit; many companies in economic development zone are moving in. But the transport in Bagang can not be satisfied. There is only No.307 bus with capacity of ten person and charge 5yuan each time. It swarms with people every time and has brought a lot troubles to the residents of Bagang to go out.

●**There are too many stops from Changsha road to Tianjin road, while too little stops in Siping road.** Residents suggest that the stops should be set at the residential area. Boxinyayuan community and Langyueshengjin community have already become big residential zone but there are only one stop in Siping road from present designed route map. Only one stop is not enough for a few places. They suggest one stop should be sited in front of drug factory. In the section of Siping, one stop should be sited in front of First Prison, one at Siping leather factory, one at Siping road gas station. Stops choosing should be considered in the long run because there will be Beicheng new zone. We should take later housing estate developments into consideration.

●**Pay enough attention to the travel and interests of low-incomers and other vulnerable groups.** For example, the design for BRT branch lines “Tianjin Road” stop is unreasonable. The distance between “Tianjin road” and “Ergong road” is too large.

“Tianjin road” stop can only satisfy one nearby housing estate, Jiahuayuan. But the self-established buildings of Ergong company near “Tianshan Share” has large mount of floating population who all belong to vulnerable groups. It will be convenient for those people to go out if the stop is set in the cross road of Xinti Lane and Hebei road.

#### **4.1.2 Major advice on the static parking facilities.**

To ease the parking pressure, we should take “planning” “construction” and “management” into consideration.

●Determine our city’s development strategy of minibus and parking combining with “Urumqi transport development white paper” to lead to “co-ordination of supply and demand”. Try to realize the parking space to 0.9-1.0 per car as soon as possible.

●Establish strict supporting parking completion acceptance mechanism. Acceptance certificate of completion must be officially released after the newly built equipped parking lot pass acceptance check by parking competent department. The failed ones should make some corresponding remedies in order to enlarge the scale of the equipped parking lot gradually.

●Fully increase the present parking space usage ratio to ease increasing prominent parking contradiction by measures like strengthening parking management, adjusting parking charges, establishing parking guidance system, staggered parking and so on. Under the current condition, we can differentiate parking fee and

management to increase the present charge standard properly, to adjust the parking demand and transport demand, to decrease the proportion of drivers and push forward the industrialization of public parking lot.

- Suggest strengthening the parking management in the road at daylight and setting schemes like forbidding parking, or allowing short-term and long-term parking; As to the increasingly prominent old residential parking contradictions, it's suggested to implement the "open all night inside the road parking" scheme to relieve people's parking problem.

### **4.1.3 Advice on improving the city traffic condition.**

- The improvement and reinforcement of the BRT lines

The BRT lines should continue to be integrated to increase the speed of line operation and coverage scope, and the modification of the BRT platform hardware facilities should be considered from the following aspects: the platform should set the intelligent display of the parking information of line sharing stations; Transforming the BRT south train station square; Considering the opening of wifi ; the Bus TV should display the dynamic name of the station, as well as the main spot near the site, on the one hand, to make the public transport system service more humanized, on the other hand, to make the floating population's travel in the city more convenient; Suggest setting up information platform and adapting the QR code, so the users can scan it by their phones to add the micro chat of BRT for the site and other detailed information query of BRT line, and put forward reasonable suggestions to the system timely, which can provide reference for relevant departments; Suggest separating the green belt and the special line with rock road when constructing the special line for BRT. In this way can we avoid the seepage damage on the road surface from the irrigation of the green belt or the melting snow; Consider improving the top design of the BRT platform, for the roof is not sunshading at all and extremely hot in summer for people to stand under, so the sunshading of the roof must be taken into account; Consider applying solar energy and install solar panels, for the use of solar energy is not only environmentally friendly but energy-saving; The staff uniforms should embody Xinjiang elements; For the conditional sections, we can consider opening both of the ends to improve the efficiency in and out of the station to avoid the crowd congestion; Different lines of vehicles should be divided into different colors, for color can leave people a deeper impression than the numbers; Suggest using a resin material to make BRT separating fences; Suggest adding the brand that have the electronic instructions of BRT transferring. Every car and every platform should have line identification, and it's better to use Chinese, Uighur, and English for identification; Suggest learning from common bus, get on at the front door and off at the back door to avoid congestion in the door accessories.

- Speed up the transformation and construction of the sub-arteries

Due to the constraint of geographical conditions , Urumqi road network exists

congenital deficiencies. The north-south trunk road resources are limited, if special BRT lanes were set on Altai Road, it will further take up the car road resources, and in the case of lack of alternative route, could lead to a more serious congestion. Therefore, in the process of the planning of BRT lines, we should also fully consider the road traffic conditions of BRT parallel lines which can meet the needs of car users to make a detour, and it is necessary to properly make some engineering reconstructions to improve the road traffic conditions of parallel lines, to guarantee the demand of car travel users.

- Early plan the east-west line throughout the city and increase the investment

Now the west and east area, such as the east Hongguangshan residential circle, and the vicinity of Qimashan Mountain to the west has formed a large mature residential circle. With the further development of west expansion and east extension in the future, the construction of BRT lines is conform to the long-term planning and development of an event which is the livelihood of the people in Urumqi. Whether BRT6 branch line or the other bus lines, will obviously improve the capacity of south and north of the city's transportation.

#### **4.1.4 Advice on improving the service of public transportation.**

- Improve the existing bus hardware facilities

The improvement of the bus station including ordinary bus station and BRT bus platform. At present, the public put forward more suggestions on the modification of the BRT station, and the improvement of the common bus station include: increase waiting space, complete the shading and bus site selection and building work, which has to avoid the intersection or places with dense stream of people to prevent the occurrence of security incidents.

- Further improve the level of business and culture quality of bus service

Along the survey there are still many residents reflected that they have seen some extreme events in the bus to the research group. These a few extreme events directly affect the overall image of the bus drivers, so we hope the bus management department can strengthen management to further improve the service level of bus drivers.

- Optimize the bus lines and enlarge the transit coverage

For those lines with too much overlaps or detours, we should combine them to increase the frequency of bus travel to north area to meet the residents' travel demand; for the no bus area, new bus lines should be opened up.

- Contact more with the public, listen to them and take their good advice

In the research, people think for the similar large projects, the public's opinions should be taken into consideration. For example, when the Suzhou Bridge was built, there is no one to consult the people, which led to the low living quality of people near the viaduct: no light under the bridge; buildings are too close to the viaduct, some of which even can be touched; the pollutant under the viaduct cannot be disposed timely which greatly affected the daily life of the nearby residents. So this time we did the environmental evaluation and social assessment first and gained a lot of support from the public who think it as people-oriented and for their real benefit.

#### **4.1.5 Relevant advice on the on the improvement of the project design.**

- Project planning should avoid the waste of resources

The traffic line should have a long-term, orderly, reasonable and scientific planning. In Urumqi, the metro line 1 has been in the construction, the problems such as whether the subway operation will lead to the decreasing of passenger flow volume of BRT, whether there is some overlaps between the subway and BRT lines or whether there is a waste of taxpayer resources, need us to make scientific, orderly and long-term planning to the city's traffic. If the overlap does cause the traffic division, it must cause the waste of resources. Comparing with conventional public traffic, BRT is much more faster, which brings convenience to the public and has certain social effects, but the cost is high with insufficient economic benefit. While the cost of conventional bus or ordinary bus is not high, if there is a reasonable scientific route planning. There is no need to set the BRT mass transit in some remote areas with less traffic, the ordinary bus is sufficient enough. But decisions should be made according to the practical situation and avoid fitting everything with one size. BRT platform construction should also be on the premise of safety and environmentally friendliness with new materials thrift.

**He Tao, male, 35 years old, Han nationality, junior college degree, the private sector employee of Hongshan New Century High-rise :** it is better to integrate the buses, subway and BRT vehicles together now, the platform design should be easy to transfer to each other within the shortest time, but the route should be different, otherwise it will be a waste of resources, and also add to the city's traffic congestion.---- on March 18, 2014 the second interview

- Integrate and optimize the bus lines, extend the ordinary buses to the auxiliary roads and the urban epitaxial areas.

After the emerge of transportation vehicles like BRT, subway, bus will still exist as a supplementary means of transportation, because the places that the BRT, subway cannot reach need bus, the expanding of city needs more buses in the form of a short- tripped and quick transportation for the convenience of citizens in urban epitaxial and extending area.



●**Improve the design of the traffic signs, to design the traffic lights scientifically and reasonably, too much traffic lights will influence the traffic speed.**

**Urumqi city traffic police detachment traffic division, Zhang Junwei, male, Han nationality, 33 years old, bachelor's degree, the chief of the traffic division section:** not all platforms need to use signal lamp to control. In my opinion, if the platform cannot be equipped with signal lights, then just don't set them in those platforms, for we cannot set too much signal lamps just for the platform's sake. On the other hand, this problem should be solved by adjusting the position of the platform or specially build platform bridges. Building a crossover will cost more than 10 million Yuan, while setting the light only costs 200000 Yuan, is the most economic and cheap way. So the government always like to solve the problem by setting the lights. But too much lights cannot embody the superiority of BRT.---- on March 14, 2014, the first set of records of symposium

●**Increase the green belts on both sides of the road**

On the premise of meeting the requirements of project construction, we should try to save the land and reasonably arrange construction schedule. After the construction, we should clear the site timely and withdraw from the occupied space to restore the original road and greening.

●**Increase the number of pedestrian crossing facilities: pedestrian crossing facilities along BRT lines need to be increased, in order to improve humanization and reduce the operating safety concerns at the same time.**

**Zhang Junwei, a 33-year-old Han man who graduated from undergraduate school and a section chief of traffic division of Urumqi city traffic police detachment:** the most important problem of BRT is the pedestrian crossing. Personally, I expect the construction of stereoscopic crossing facilities, such as overpasses and underpasses, because it is safe for pedestrians to cross streets. The station located in the intersection had better make use of stereoscopic crossing facilities. To the station located in the segment of road, currently we can only set up zebra crossing and add signal lights beside it. But there is the biggest problem that if signal lights are near the intersection, it will cause high intensity about signal lights and low speed of the vehicle traffic problems, it's inconvenient. We should fully consider the problem of pedestrians crossing streets when set stations. —— The first symposium record on March 14, 2014.

●**Humanize BRT construction and related supporting facilities.**

It's best to construct the BRT lanes in the middle of the roads. BRT lanes will make little function if built on both sides of roads. For example, the BRT lane on the Youth road is on the side of the road and all vehicles in a driveway, which couldn't embody the fast speed of BRT. It will be better if the BRT stations are set at places with overpass or underpass, which can directly connect to the station and ensure the

safety of citizens to travel. We hope that two ends of the station could be designed to contribute buses to in and out of the station in order to save time.

**●Pay attention to special requirements for the elderly.**

As special vulnerable groups, the elderly will have their own special requirements. In the survey, the requirements of the elderly mainly are: more safe and convenient crossing facilities, more special seats for the vulnerable in buses, the striking station name mark whose font size should be bigger, and preparing first-aid kits to prevent sudden illness of the elderly, in addition, the elderly themselves gave advice not to go out during rush hours to avoid increasing the burden of young people, and other feasible suggestions.

**Yin Chengxiao, a 70-year-old Han man who graduated from undergraduate school and a retired lawyer (a resident):** I hope that BRT4 and BRT6 lines could be more humanized. More waiting chairs should be set especially for the elderly and crossing stereo channels as far as possible constructed with some ship-and-galley tiles. — The first record on March 20, 2014.

**The elderly symposium of Tuanjie West community in Xinhua South Road Street in Qiantangjiang Road, Tianshan district:** we suggest that the government departments can set a special car supermarket of some large supermarkets to free shuttle the elderly who go to shopping. We are unwilling to squeeze ourselves into a crowded bus with young people during rush hours and always let them offer their seats, after all, they are also tired after a day's work. So, I think it would be better if there is a supermarket bus only for picking up the elderly people, that will make old people's traveling more convenient, and thus they needn't to take a crowded bus with young people. ---- on March 21, 2014, A transcript from the sixth group

●Install more security cameras. This advice is mainly considered from security reasons. At present, the stability safeguarding in Urumqi is more serious, vehicles are easily to be the crime points of the violent and terrorist attacks. And if we slack even a little, it will be likely to lead to disaster. The surveillance cameras can not only inject a psychological deterrent to terrorists, but also can strengthen the sense of psychological safety to public.

**●Perfect the special lanes for the handicapped.**

The ramps available for the handicapped are sometimes too steep, which is detrimental for them to go out. Especially in winter, roads can be slippery, so accidents are more likely to happen. It's impossible for the wheelchairs of the handicapped to enter in from the gate, so they have no choice but to enter from the iron gate on the side, but the door is a little bit narrow for their wheelchairs.

## 4.2 Advice of the relevant departments on the traffic integrated information platform construction.

**The transportation bureau of Urumqi:** In the survey, Yuxin, director of transportation management office, thinks that all the constructions of the road and project have an influence not only on the operating vehicles, but also on the private cars and other vehicles. The construction units and citizens need to pay a lot of efforts to reduce the negative impact to the minimum level. The project of traffic improvement is beneficial to traffic development in the future in Urumqi. The previous information platform was constructed by the loan from the World Bank, which plays a role in practical using and reflected their superiority. ——A forum interview from the fifth group on March 13, 2014

**The urban management committee of Urumqi:** In the survey, Lijun, director of the municipal facilities management office, thinks that the major duty of them is the maintenance and repairing of roads, which coincides with purpose of the construction of roads, that is for the convenience of the citizens' traveling and improvement of the city's transportation.——The case interview from the third group on March 14, 2014

**The Scientific Research Institute of Traffic Police Detachment in Urumqi,** is a research and application department of intelligent traffic information system. Fan Jianwei, the deputy director of the scientific research institute, thinks that the traffic integration information platform is a high-level platform, which brings together information from various systems, such as traffic, road building, urban management, and air, sea and land, etc. It gathers out-field facilities information at a higher level, and each of its departments can collect information together to provide decision-making analysis of a higher and better level. The traffic detachment will fully cooperate with the construction of traffic integration information platform, and to give the support of data and make a better service to road planning and road construction. ——A forum interview from the first group on March 14, 2014

**Urumqi City Land Resources Bureau,** is the department of the Urumqi government to plan, manage and protect the city's land resources, mineral resources and other natural resource. During the survey of the project, Cheng Lian, an employee in the planning department of Urumqi City Land Resources Bureau, said, city land-use planning has been planned to 2020; all of the construction is supposed to be in line with the planning range. The planning from 2005 to 2020, with reference to the index of autonomous region and the index of each type of land, cannot be changed freely, just with a little flexibility in allocation. At the beginning, the research planning was formulated after seeking the advice of the counties, consulting experts and the field investigation.——on March 14, 2014, the third group interviews of the forum

**Urumqi Rail Bureau,** with the total line length of 5040.3 km and 3009.7 km in

operation, is in charge of 1552 stations and has the main jurisdiction over the railway network of Xinjiang Uygur Autonomous Region and the railway line of north in Yumen, Gansu Province. In the project survey, Liu, the Information Office Director of Urumqi Rail, believes that the newly built High-speed Rail station of Ergong will become the largest rail transportation hub in Xinjiang, so the BRT, regular bus and the subway's gathering here should be taken into account in accord with the new station hub role to design public transportation lines. ——on March 17, 2014, the third group interviews of the forum

**Urumqi Economic and Information Technology Commission**, according to the introduction of Tian Jianxun, the vice Consultant of the Information Department, we know that the Information Department is mainly responsible for formulating the policy, making the future plan, setting the standard, finally examining and approving the projects of the transport integrated information management platform, which involves many departments such as the police, the public transport system, urban management system, the unified management office and so on. These departments have many works to do in the construction of the information platform. Currently more than 400 bus stations, more than 4,000 buses as well as 200 BRT vehicles in Urumqi have achieved 3G video network coverage including the GPS. Currently all departments are involved in the construction of application software, ticketing systems, video systems and the GPS and so on, but all of them have their own set of information management pattern and the standard, therefore it's really hard to avoid the overlap and repetition in the process of exchanging and integrating information. In order to solve this problem, in the future we will use the cloud computing technology, based on big data, by means of supercomputing technology and analytic technique of big data to realize the integrated construction of information platform and to achieve the concentration and the sharing of information, as well as thoroughly realize these smart of comprehensive transport information platform of Urumqi. ——on March 18, 2014, the sixth group interviews of the forum

**Urumqi Municipal Development and Reform Commission(NDRC)**, is the department to draw up the planning and policy about the whole city's economic and social development, to make good gross balance, to make structural adjustment and to guide the macro – control of the whole city's overall economic system reform. There are 15 functional departments (offices) under its charge, among them the office of key projects has the main responsibility to put forward the plan of key construction projects and the policy measures, to coordinate and organize the key construction projects; to guide and coordinate the work of the city's bidding; to take the lead in organizing the relevant departments to make assessments and arguments and submit to a higher authority for approval toward the preliminary design and budgetary estimate (including budgetary estimate adjustment) of the basic construction projects; and is responsible for the approval of commencement report about capital construction projects which the government invests within the purview; to organize

and manage completion acceptance and post-evaluation works of capital construction projects; is responsible for the management of key construction project and key previous project reserve and so on. In this research, Tianhua, deputy director of the project management office, thinks that the public transport is mainly to relieve urban traffic problems and govern the urban traffic congestion. In addition, the air pollution also needs controlling. Although this problem has been eased through coal to gas project, vehicle exhaust governance is still a puzzle. Therefore, BRT is a convenient and efficient transportation. —— The fourth forum interview on March 27, 2014.

**Urumqi Urban Planning Administration Bureau**, responsible for the urban management, is a department under Urumqi Municipal Government's unified administrative area. In this research, Wang Xiuli, the municipal planning bureau chief engineer, thinks that Urumqi, as a developing city, is imperative to build decent public transport. She recommended the use of large-capacity BRT bus system. Now, we have finished *Urumqi City Master Planning from 2012 to 2020* which is an urban comprehensive planning, including spatial regulation planning, urban and rural planning, and population control planning, urban comprehensive transport planning and so on. It sets up Urumqi development strategy about "controlling south, expanding north, extending west first and advancing east later" as a whole. In addition, construction land should be kept within 500 square kilometers, per capita construction land should be controlled within 125 square meters. —— The fourth forum interview on March 28, 2014

## **5. The residents' attitudes and advice of the project**

### **during the relocation.**

#### **5.1 Land acquisition and relocation policy.**

With the rapid development of Urumqi urbanization, urban area is expanding rapidly, but urban transport development is relatively lagging behind. According to the new urban development planning, it is necessary to give priority to the road development, but the resulted land requisition and demolishing phenomenon is more widespread. The land requisition and demolishing directly relates to public vital interests, if it's mishandled, it will lead to serious social conflicts and also restrict urban construction and development. For land acquisition and demolition, Urumqi government has issued policies like "The Measures Implementation Details of Landless Farmers' Employment Training and Social Security in Urumqi" (Urumqi government office (2009) No. 96), "The compensation measures of Urumqi on the national autonomous regions and municipal key construction projects involving the collective land expropriation " (Urumqi government office (2011) No. 272), etc.

According to the “The compensation measures of Urumqi on the national autonomous regions and municipal key construction projects involving the collective land expropriation”, the compensation of expropriated collective land mainly includes land compensation fees, resettlement subsidies, young crops and ground attached crops compensation.

Among them, the compensation provisions are: (1) the expropriation of farmland, according to the 8-10 times of the local annual output of cultivated land to compensate. (2) Expropriation of irrigated arable land and fish ponds outside of farmland, compensate by 7-9 times the local annual output of cultivated land. (3) The expropriation of the dry land outside of farmland, according to the 7-8 times the local annual output of cultivated land to make up. (4) The expropriation of forestland, artificial pastures, homestead, rural roads, threshing floor, according to 6-7 times the local annual output of cultivated land to compensate. (5) The expropriation of natural grassland, pay compensation according to 6 times the local annual output of the grassland. (6) Transport key construction projects approved by the State and the autonomous communities need to expropriate the 1st, 2nd, 3rd, 4th items in the preceding paragraph to execute. All kinds of arable land, grassland annual output are calculated by their former three-year average annual output. Requisition of unified annual production criteria are shown in table 2-35.

**Table5-1 the standard of land expropriation of unified annual output value(base on cultivated land compensation calculation table)**

<b>classification</b>	<b>first-class cultivated land</b>	<b>Second-class cultivated land</b>	<b>Third classes cultivated land</b>
<b>Compensation base (Yuan/mu)</b>	1500	800	600
<b>instructions</b>	1. the standard is applicable to food crops cultivated land. 2.the output value of Special crops of cultivated land, vegetable field, orchard should be higher than the return of first-class standard of arable land; Cotton to highest must not exceed 1.5 times; Orchard highest must not exceed 2.0 times; Vegetables to highest must not exceed 3.0 times; Grapes to the highest must not exceed 4.0 times. Other economic crops are calculated according to the actual output value		

Source: the “Announcement on the Implementation of the Standard of Land Expropriation of Unified Annual Output Value in the Autonomous Region Land”( released by the new Land and Resources Department [2011] no. 19) Autonomous Region of Land and Resources Department.

The Chief of the policies and regulations division of Midong Dist land demolishing and requisition office, Zhang Yuesheng, said: in the revitalization of the collective land in Zhenxing village of our Midong Dist, we fully considered the close geographical advantage of the village, so the standard of the land expropriation is the highest standard of execution, such as land output value in accordance with the standard of a first-class cultivated land, the compensation of cultivated land are made

in accordance with the vegetable (compensation) (all kinds of agricultural output value standard are shown in Table 2-36).

**Table5-2 All kinds of agricultural output value standard**

Agricultural land categories	Production standards (Yuan/mu)	Agricultural land categories	Production standards (Yuan/mu)
Plow land	1500	Cotton field	3500
Garden	3000	grapes	6000
Vegetables	4500	The dry land and wasteland	800
rice	4000	Special crops	According to the average output value calculation three years ago, the exceeding part of annual <b>Vegetable</b> production standard is calculated in accordance with the standard vegetables

Source: Policies and Regulations Division of Midong Dist land Demolishing and Requisition Office. Besides, the regulations of the resettlement fees are shown in Table 2-37

**Table5-3 Multiple calculation table of the resettlement fee**

Per capita cultivated land (mu)	The resettlement fee multiples
above3.0(mu)	12—13
2.0—3.0	14—16
1.0—2.0	17—20
below1.0(mu)	<b>30 times of the sum of land compensation fees and resettlement</b>

Source: the “Announcement on the Implementation of the Standard of Land Expropriation of Unified Annual Output Value in the Autonomous Region Land”( released by the new Land and Resources Department [2011] no. 19) Autonomous Region of Land and Resources Department.

Among them, the compensation standards of the green crops and ground attached crops are: ① General crop plant compensation is given according to the crop in the first three years on the average annual output value compensation. ② Perennial root

crop plant compensation is given according to the average annual output value of the compensation three years ago which preceding the crop 2 ~ 3 times. ③ The ground vegetation of arbor, shrub and economic forest which are planted according to the standard, is to be carried out according to the *Regional Key Construction Project Land Acquisition Compensation Standards* (released by the new Land and Resources Bureau [2009] No. 131). ④The grow seedlings base and nursery garden which has been ratified and confirmed by relevant department must be compensated for real loss. ⑤For those which were not planted by the planting standard or grow seedlings in plough should be compensated reasonably in real situation. ⑥ Special crops should be compensated according to the relevant regulations, if there is no relevant standard, it should be compensated reasonably in accord with the real situation. ⑦ The condition like irrigation and water conservancy facilities, temporary facilities, the planting greenhouse and fence must be given reasonable compensation by assessment result.

According to the "The Measures Implementation Details of Landless Farmers' Employment Training and Social Security in Urumqi", the landless farmers have the right to enjoy the social insurance, including those who lost all, most or some of their land under the government's unified imposing of the farmers' collective land within Urumqi Municipality Administrative area, and at the same time, the farmers must be on their working-age (at the age of 16 and upward, for men under 60 years old and women under 55 years old ) or above, with the registered agriculture account having the right of village collective land contract when the government imposes land.

Among them, the land acquisition farmers preferential employment policies are :the public service jobs invested by the government should give priority to the resettlement of those land acquisition farmers who have employment difficulties; for those who got the job and with the employment contract signed more than one year, the government should give them social insurance subsidies and post subsidy in the corresponding period. For those landless farmers who are in the working age, have the ability to work as well as employment aspirations, and have transacted the "Candidate Registration Certificate ", through self occupation or self-employed to achieve employment , can enjoy 20,000 to 50,000 Yuan small secured loans in accordance with the provisions of the application, and in accordance with the relevant provisions of the job secured loan discount document.

There among, for those land-expropriated farmers who have totally lost all of their lands, the pension provisions rules are as follow. Firstly, the land-expropriated farmers who have reached retirement age (male are over 60 years old, female are over 55 years old) have engaged in agricultural production and in accordance with the actual local labor (minimum calculation from the age of 16, apart from that during the school and sentenced into detention or reeducation through labor ) and converting the payment of one year's in the fixed term every two years, to pay the old-age basic living fee (payment period derived for less than a year but calculated in one year ). The number of payment is as 60 to 100 proportion as its last year's average wage of



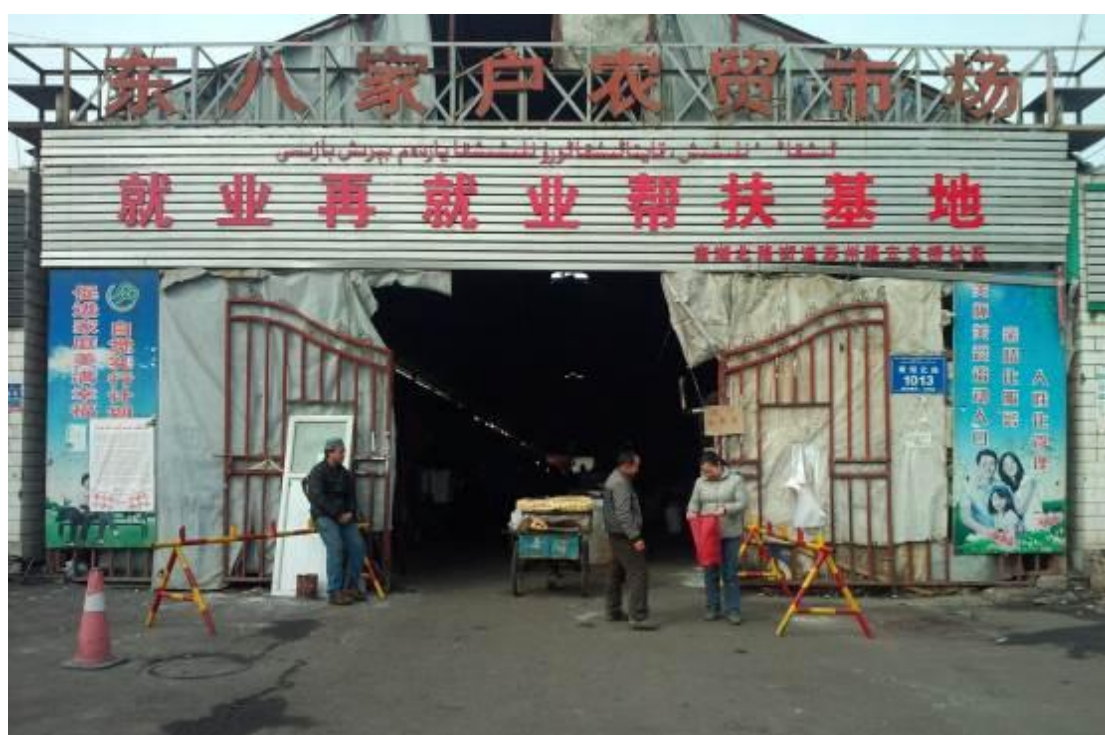
workers in the municipality. The payment is of 20 percent, while the after-payment is of 8 percent to set up individual account. Secondly, according to the fact in the local agricultural production and its working age, peasants whose land has been expropriated, need to convert the payment of one year's in the fixed term every two years and pay for the old-age basic living fee. The number of payment is as 60 to 100 proportion as its last year's average wage of workers in the municipality. The payment is of 20 percent, while the after-payment is of 8 percent to set up individual account. To farmers who have been taken more than half of their land, the pension provisions are as follow. Firstly, the land-expropriated farmers who have reached retirement age, according to the practicality in the local agricultural production and its labor age, have to convert the payment of one year's in the fixed term and pay for the old-age basic living fee. The number of payment is as 40 to 60 proportion as its last year's average wage of workers in the municipality. The payment is of 20 percent, while the after-payment is entirely counted in personal account with hundred-percent accumulation. For people who paid for 15 years' or more than 15 years once only, will be repaid monthly by his personal account's accumulation and divided by 180. Secondly, the land-expropriated farmers who are in working age, according to the practicality in the local agricultural production and its labor age, have to convert the payment of one year's in the fixed term and pay for the old-age basic living fee. The number of payment is as 40 to 60 proportion as its last year's average wage of workers in the municipality. The payment is of 20 percent, while the after-payment is entirely counted in personal account with hundred-percent accumulation. After-payment for once only, to continue to pay the fee, it can be referred to previously mentioned methods. For people who paid for 15 years' or more than 15 years, will be repaid monthly by his personal account's accumulation and divided by 180. For farmers who have lost less than 50 of lands, the pension provisions rules are as follow. The land-expropriated farmers who have reached retirement age, according to the practicality in the local agricultural production and its labor age, have to convert the payment of one year's in the fixed term and pay for the old-age basic living fee. The number of payment is as 20 to 40 proportion as its last year's average wage of workers in the municipality. The payment is of 20 percent, while the after-payment is entirely counted in personal account with hundred-percent accumulation.

The medical insurances for land-expropriated farmers are as follow.

For land-expropriated farmers who are over 16 years old should pay on the basis of the amount of last year's social average wages and multiply by 5. The whole after-payment will be calculated in medical insurance account. First, If farmers are reached retirement age when in the land requisition, they need to pay fees for basic medical safeguard for 25 years once only while women need to pay fees for 20 years. Second, If farmers haven't reach retirement age at land requisition, they should pay for the medical insurance once based on the practicality in the local agricultural production and its labor age and convert the payment of one year's in the fixed term.

Besides, there are also such rules that Landless farmers who pay back fees for old-age pensions and medical insurance are funded by government, community from country and farmers themselves. The government pay for 30% of it, the community accounting for 30% and farmers afford the rest 40%.The fees paid by country's community were disbursed from the land compensation fee. The fees paid by farmers themselves were disbursed from resettlement fee.

Associated projects: Since 2004 they did the resident status transfer from rural to urban, landless farmers who are from Shuimogou Village applied for social insurance. Except for the social security provided for landless farmers, the region's and municipal government have done a lot of work for landless farmers in establishing reemployment market to increase job employment and set up a certain standard to make up by money.



**Picture5-1 Dongbajiahu Farmers' Market**

Relocation project should be carried out according to procedure including establishing leading organ, household advocacy, detailed registration and investigation and evaluation toward removed plough and seeking for farmer representatives' opinion and suggestion. Eventually, signed the contract of house demolition under negotiation.

In November 2013 Xi Jiang Uygur Autonomous Region bring [regulations about acquisition and compensation on state-owned land] method (new deal No.187) was introduced officially. It has become Urumqi guiding policy on acquisition and compensation on state-owned land from now on. It formulated that man can choose money compensation or the right of exchange property. If the one has chosen

compensated by money, the compensation for the value of the house cannot less than the market price of similar real estate. For the levied housing, the price cannot less than the average market price of newly built commercial residential building. If the man involved in the acquisition fit with indemnificatory housing conditions, he will has the priority to be solved problem when acquiring individual house. When the acquired house area is lower than local housing guaranteed, government should compensate according to guaranteed area.

The policy also points out that rural collective economic organization can not adjust homestead or collective building land when acquiring houses on village, rural-urban continuum collectively-owned land in planning town area for the sake of public interests. The government involved in land acquisition can should take care of these land- expropriated farmers' work and life .And treat them equally as theirs citizens. If the collectively-owned land can be nationalized, thus, the compensation should be observed this rule.

## **5.2 The defining of the requisition scope and amount of the project**

In the above components, land acquisition of south square of High Speed Rail Transit hub and north square of High Speed Rail, House demolition of Beijiao passenger transport hub(north road of Nanhu) are finished. Land acquisition of Midong first and last station construction project, Sangong Tingbaochang construction project, Midong Tingbaochang construction project are loan projects. House demolition of Altay road's northwest part expansion project is related project.

Projects have been implemented, loan projects and related project affects 117 households with 652 people. Classification according to impact: Permanent collection of rural collective land involving 50 households with 216 people; Beijiao Passenger Terminal Project involves the construction of 45 households demolished on State-owned land with 147 people; Altay road widening project on state-owned land house demolition involves 69 households with 242 people. Project has been imposed state-owned land 4.59ha (68.93 mu). The project involves the demolition of houses demolition, the demolition of houses 18776.98 m<sup>2</sup> total affects 114 households with 389 people. Project intends to rural collective land 15.93ha (238.95 mu) affects 50 households with 216 people. Considering on the influence amounts of enterprises and shop fronts, the implemented northern suburb of Terminal Project affects 1 enterprise 2and 40 Shopfronts with 134 people; Altay road widening project involves 13

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<sup>2</sup> The affected enterprise is Xinjiang Islamic scriptures school, the northern Terminal Project affects only part of the wall of the unit guard room and the window surface, only affecting a small amount, not related to specific employees.

enterprises and institutions, the actual influence number is 47.

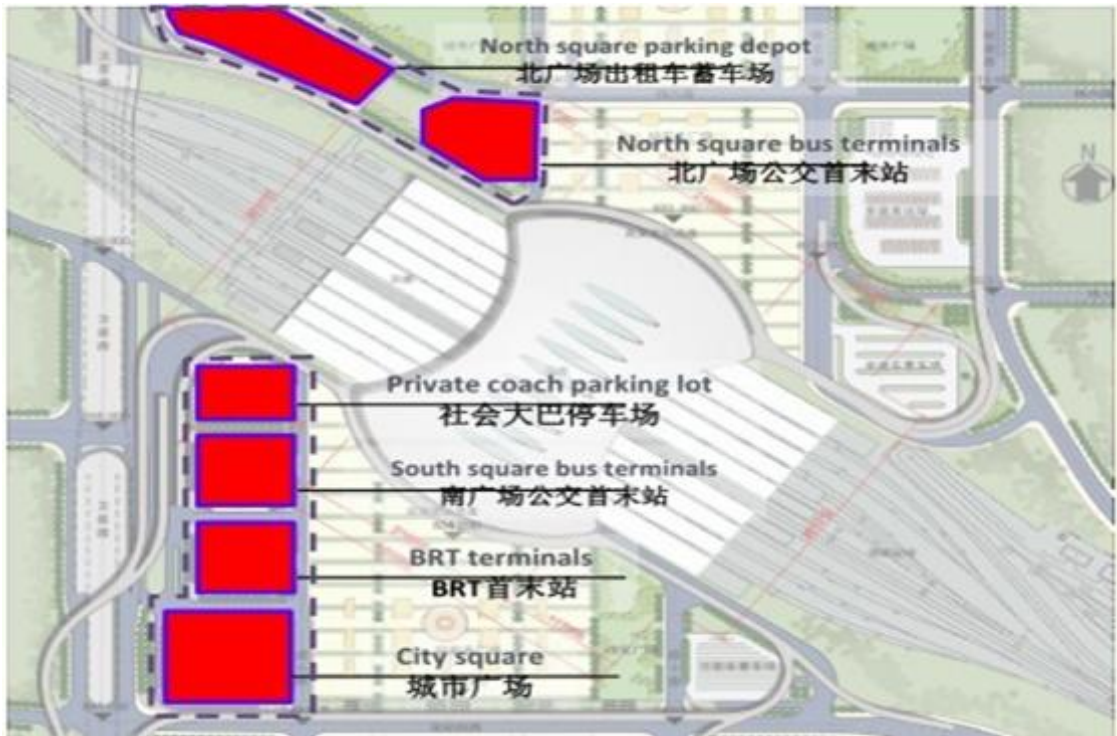
**Table 5-4** The overview about the impact to land, population and enterprise

Subproject			Individual project name	Village	Rural collective land expropriation		State-owned Land Acquisition		house demolition on state-owned land	Affected Population			
					ha	mu	ha	mu	m <sup>2</sup>	Household	Inhabitant's number	Enterprises (including shops) number	AP of enterprises
Loan Project	Not yet in	Public transportation infrastructure projects	Midong station	Donggong	0.67	10.09	0	0	0	0	0	0	0
			Midongtingbaochang	Donggong	10.01	150.11	0	0	0	19	106	0	0
			Sangongtingbaochang	Sangong	5.25	78.75	0	0	0	31	110	0	0
			<b>Subtotal</b>	-	<b>15.93</b>	<b>238.95</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>216</b>	<b>0</b>	<b>0</b>
	Has been implemented	Public transportation infrastructure projects	Beijiao passenger terminal project	Shumogou region	0	0	0	0	3300	4	13	41	134
			South Square transit hub of High Speed Rail Station	Toutunhe region	0	0	3.78	56.77	0	0	0	0	0
			North Square of	Toutun	0	0	0.8	12.16	0	0	0	0	0

Subproject			Individual project name	Vill age	Rural collective land expropria tion		State-o wned Land Acquisit ion		house demol ition on state-owne d land	Affected Population			
					ha	m u	h a	mu	m²	Hou seh ood	Inha bitan t' num ber	Enterprises '(including shops)num ber	AP of enter prise s
			High Speed Rail Station bus terminal	he regi on			1						
			subtotal	-	0	0	4. 5 9	68. 93	3300	4	13	41	134
Related project		Urba n Traffic Integ ratio n Bus Corri dor Proje ct	Altay Road - northwes t path of reconstru ction works fast	沙 区	0	0	0	0	4089. 85	69	242	13	47
				新 市 区	0	0			11387 .13				
Total					15.9 3	23 8.9 5	4. 5 9	68. 93	18776 .98	123	471	54	181

Resettlement impacts of the projects have been implemented: Recycling state-owned land 4.59ha (68.93 mu), including South Square of High Speed Rail station's transit hub recycle state-owned land 3.78ha (56.77 mu), North Square of High Speed Rail station's bus terminal recycle state-owned land 0.81ha (12.16 mu). Demolition of housing area 3300.29 m², involving residential 4 households with 13 people, 40 shops with 134 people, 1 enterprise and institutions a total involving 45

households with 147 people.



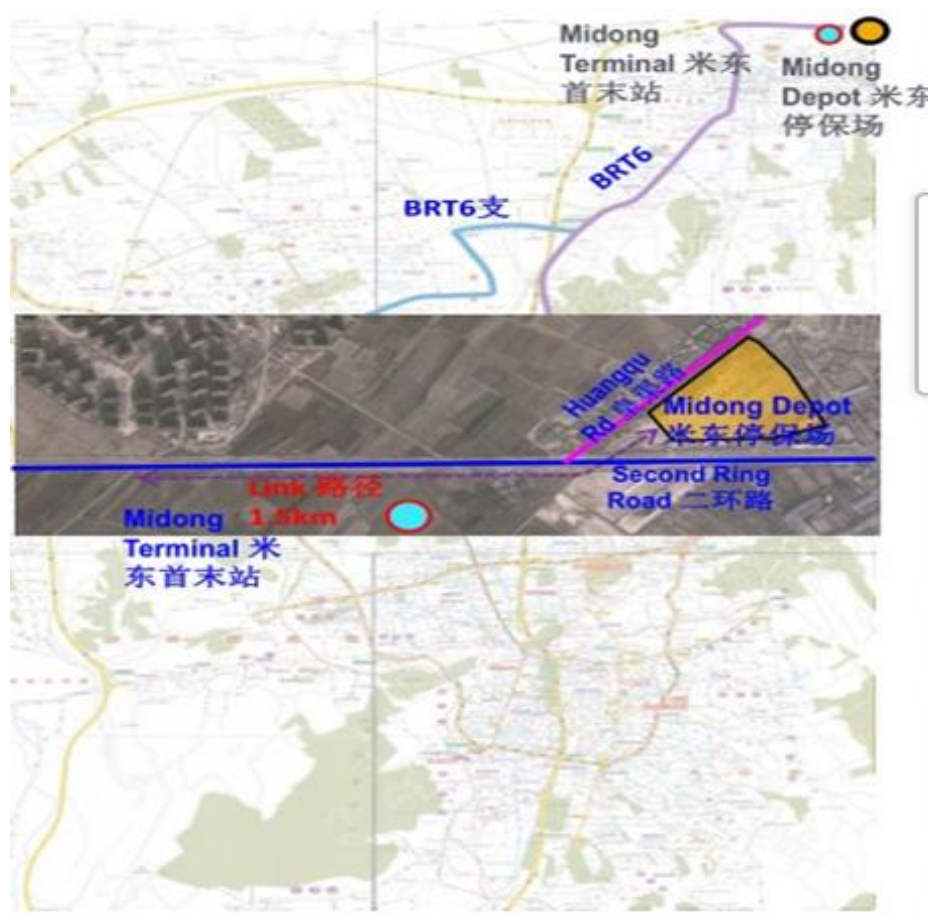
Picture 5-2 Ergong bus terminal and hub stations (provided by the feasible unit).



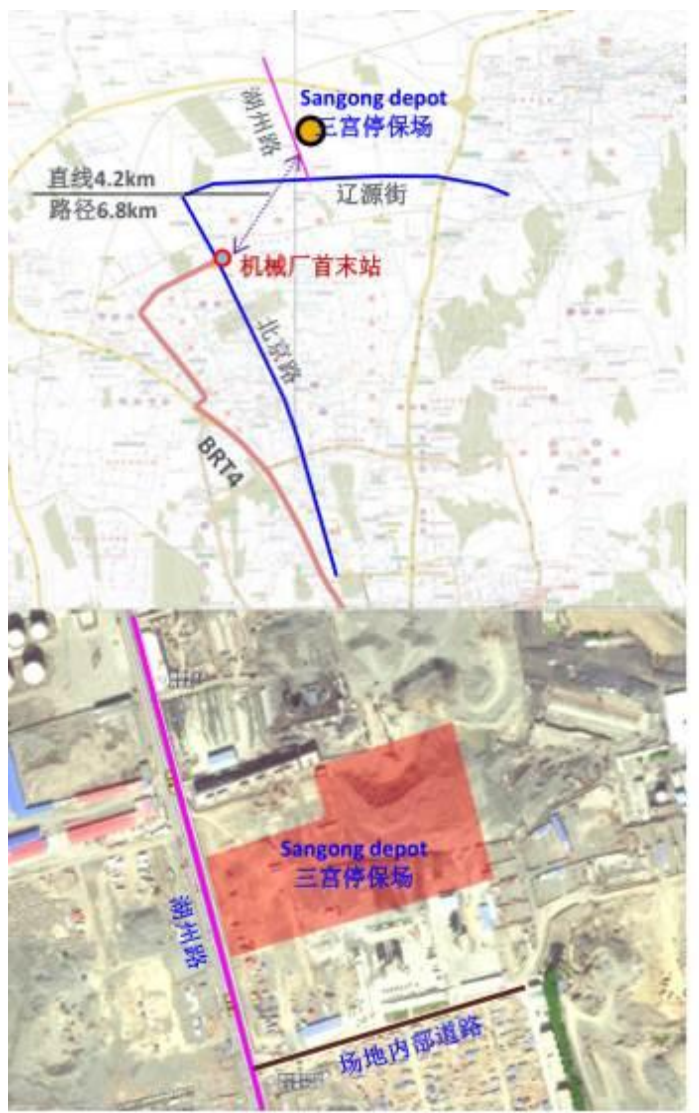


### P5-3 Beijiao Terminal (provided by the feasibility study unit)

Resettlement impacts of loan project: Loan project requires permanent expropriation of rural collective land 15.93ha (238.95 mu), of which Midong station construction expropriation of rural collective land 0.67ha (10.09 mu); Midong Tingbaochang construction of rural collective land 10.01ha (150.11 mu); Sangong Tingbaochang construction expropriation of rural collective land 5.25ha (78.75 mu). Rural collective land expropriation involves 50 households with 216 people. Loan program permanent acquisition of arable land accounted for Sangong village's total amount of 1.64% of arable land, the permanent collection of The Donggong Village, the village of arable land accounted for only 3.39 % of the total amount of cultivated land. Overall, the collection of arable land accounted for 2.51% of the two villages affected by the total cultivated area. It should be said that the project of farmland and villages affected by the proportion of the total cultivated area is very small, so the impact on the Donggong Village and the Sangong Village is very small.



P5-4 Midong terminal and Midong depot (provided by the feasibility department)



#### **P5-5 Sangong depot (provided by the feasibility department)**

Resettlement impacts of related project: The related project involves house demolition. Construction will require a total demolition of houses 15476.98 m<sup>2</sup>, including housing area 5726.61 m<sup>2</sup>, enterprises Housing 9750.37 m<sup>2</sup>. The construction of the project affects 69 households with 242 people and 13 enterprises with 47 people.

### **5.3 The attitude of the relocated towards the project**

The main impact of the land acquisition target involved in this project are farmers, with its relevant program(lineBRT4) concerning residents, commercial tenants and enterprises. The program is planned and implemented by the municipal government to



improve the urban public traffic. It is confirmed by the affected that the program is in favor of the urban traffic improvement and the citizen living standard improvement. For some people who may face such influence as the imposition of contracted land and housing demolition, they pay more attention to the compensation issues. They are willing to cooperate with the relocation work based on reasonable compensation of their loss.

① The attitudes of the relocated farmers

In recent years, along with the increasingly diversification of the suburban farmers' income resources, more and more suburban farmers have turned to going out to work or going in for business which have become the main resource of their income, instead of relying on the land for a living. Therefore, the impact on their production and life due to land expropriation, for many farmers, is no longer as big as that in the past. From the survey of Zhendong Village and Donggong Village in Midong District, at present, few people make a living by farming in the village, work and business have become the choice of most of the villagers. When it comes to the government for the construction of bus stations, the attitude of villagers are positive. They hope that the traffic condition in the village will be changed as soon as possible.

**Wu Zhanhai, a villager of the Donggong Village in Midong District (male, 48 years old, Hui nationality):**The construction of bus station is bound to benefit for us. We seldom go to the downtown unless we see a doctor or have something urgent to do. If you put me into the center of Urumqi, I can't come back, because I am illiterate (Most of villages are illiterate in rural areas).We take No.5 bus for one Yuan here, then get off at Midong District and change to the No.613 bus for 2.5 Yuan ,spent a total of 3.5 Yuan. If the bus can arrive here, it will de definitely convenient for us to travel in the future.

In accordance with the regulations of the land expropriation compensation, the compensation includes the land compensation fees, the resettlement fees, young crops and other crops compensation fees. Landless farmers can also enjoy social security. These landless farmers know that the government have a unified regulations of these polices, but for the compensation standard is still unclear, I hope the government can declare the standard of compensation to farmers. At the same time, Landless farmers hope that the government can compensate them, referring to the standard of compensation for land - expropriated farmers.

**Zhang Yunfei, a villager of Donggong Village in Midong District (Han nationality, 32 years old, unmarried, the disabled, needy household of Donggong Village):**The news that the government is gong to build public bus station here really exited me. For it will be more convenient for us to take a bus, and also to save more money. Of course, we support the government to do this project. Although I support

the project, my family has to live on the sole land and with the particularly difficult situation of my family, so I think the land compensation fees, if it's 300,000, can balance our ends. I know that standards of compensation are according to the national policy, I am just talking about the hope of peasants.

(2) The attitudes of the relocated residents towards the project (the associated project of BRT7 Line)

In the survey, concerning the possible exterior effects the relevant project may have on the project in the future, therefore, we also did some survey involving the attitude of relocation residents towards the associated project. There is no strong objection for the associated projects and they have a positive attitude towards the improvement of the urban transport situation brought by the associated project, and believe that the government will give some relocation compensations.

**The office worker of House Demolition Department in Shuimogou District:** When we just registered the accounts, the self-built households didn't agree to relocate their own houses, because people know that government compensation of road repairing is not high. When some villagers traveled to the mainland, they traveled and at the same time investigated to understand some policies about local demolition, they also searched the Internet for the mainland housing expropriation compensation policies, so many villagers may know the policies clearer than the relevant staffs. The villagers are more concerned about the compensation standard. Now if the two real estate companies around increase the housing price to 90-100 million Yuan per square meter (now is 8,000 Yuan per square meter), the villagers are likely to put forward house exchange or ask for the same compensation.

For the demolished residents, since their houses are self-built, so after the change from village to community, rents of these houses has become the households' main income source, and the rental income is considerable. Therefore, they put forward a high compensation request to the demolition and hope that the government can meet it.

**Zhao Dengli, a 66-year-old man, is a villager in Shuimogou District Dongbajiahu Village:** after the village-to-community, my current pension is only 600 Yuan per month, it's not enough. Family income is mainly based on facade renting, and there is a rental income of a hundred thousand. We booked Urumqi Morning News and Urumqi Evening News, so we can know some national housing demolition compensation policies through these newspapers. If the government wants to demolish houses, they should at least offer the compensation according to the price of nearby commodity houses, and now the price of commodity houses is already more than 8000 per square meter.

(3) Attitudes of the relocated enterprises (about BRT7 line project).

The relevant enterprises all show their support to the government's projects, but they hope that the government can find other places for them to move to or give them

corresponding compensations.

**Jiangming, a general manager of the Logistics Subsidiary of Xinxi Group Company:** our enterprise is private-owned. Now there are 14 commercial households in our freight yard, each of them has 200 square (two layers) under their control, which were built by our enterprises, the land was rented from Road Transport Bureau. The implementation of the project must have a certain impact on enterprises, for the government's projects, we must support, but at the same time, the government should find other places for us to move to or give us corresponding compensations.

(4) The attitudes of the tenant merchants of the relocated houses (about BRT7 line project).

BRT7 line project involves nearly 100 stores, and these merchants' attitudes to the project are contradictory. On the one hand, they admitted the project's positive role in improving urban traffic, on the other hand, they are worried about the possible influences the project may brought to their stores.

## **5.4 Appeals and suggestions of the affected people towards the land requisition and demolishing.**

Judging from the survey, those farmers, residents, businesses and enterprises affected by the demolition demonstrates different demands as well as some recommendations for their own interests. Those demands must be seriously treated and properly handled by government before the implementation of this project, the project requires widely listening to the parties' advice in order to ensure the minimum risk of social stability.

(1)The landless farmers' interests appeals and recommendations

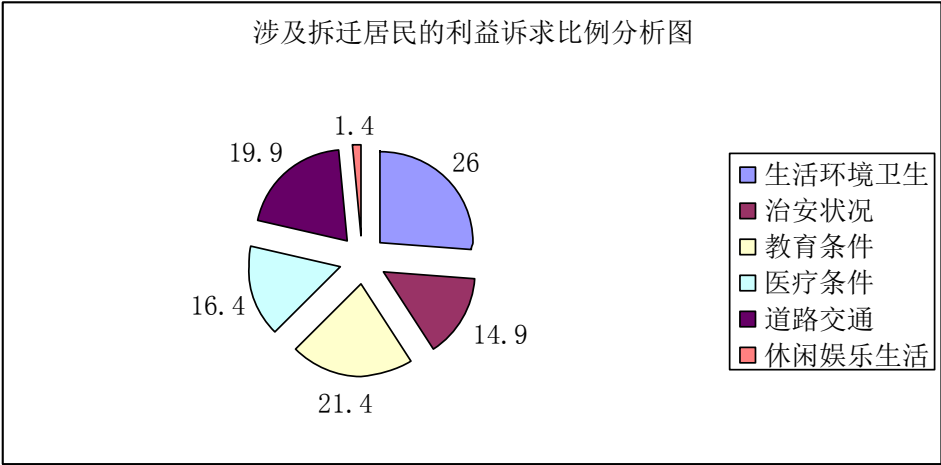
The landless farmers possibly involved in this project mainly concentrated in the two villages of Zhenxing village and Donggong village of Gumudi Town in Midong District. The two villages were originally suburban villages of Miquan city and later belong to the Urumqi Midong district after the administrative divisions of the merger. Since the main income resource of the farmers is no longer lying in agriculture, so they were enthusiastic about land acquisition. The local village committee also actively cooperated with the investigation. Farmers whose land has been expropriated have deep feelings about their lands, but they have already known there is no way to enrich one's family on the light output of land. Therefore, they all hope to raise the compensation standard in the land expropriation, especially for the difficult households. The village committee hopes that the project can impose the land block by block with no bits and pieces of the land left for the farmers sake.

For landless farmers, they are increasingly valued social security, and hope that they can enjoy the same social security with urban residents after the land requisition.

**Villager of Zhenxing Village, Mr. Zhang:** We farmers mainly live on the land for survival, but now we have nothing after land requisition (a little over-excited). Compensation last year was pieced 172,800 Yuan one acre per capita and compensation now is 30,000 Yuan per acre. The public (Midong District Government) have bought social insurance for villagers, each of us had to pay 16,000 Yuan, and now it's 26,000 Yuan.

(2)The interests appeals and suggestions of the demolished residents.

In the survey, the demolished residents put forward some requirements to the resettlement, such as the living environment, social security, educational conditions, medical conditions, road traffic and the leisure life conditions, etc. which they hoped to be improved by the government, see from Diagram 2-29, of which the highest proportion lies in the demand of improving the living environment and health, 26% in total, followed by the educational conditions and road traffic, respectively 21.4% and 19.9% of the total percentage.



**Diagram 5-6 the ratio analysis diagram of the interests appealsof the relocated residents**

(3) The interests appeals and suggestions of the tenants merchants of the demolished houses .

The merchants possibly affected by the demolition of the project mainly concentrate along the Beijiao Terminal of Shuimogou District. The shops here are all in the self-built houses of the local villagers. Due to the project implementation may indirectly affect these shops, where an self-built room has up to six shops inside it, so there is a large quantity of merchants here, nearly 100 households, and many of them have been in this business for many years and already have stable customers and relatively stable income. So these merchants, on the one hand, worry that they will not get due demolition compensation, and on the other hand, concern about their livelihood in the future, thus they hope that the government can carry out no demolition or less demolition.

**Mr. Zhou (59, owner of the Shunfuhao business hotel at the Beijiao terminal in Nanhu Road)** said: I am ternary, all of these shops are rented. The local villagers never do these, they only collect the house rent for a living. I decorated the store in August last year and got my business license in December. That was just the beginning to manage. The gross profit is almost 7-80000 Yuan a month and the net profit is 20000 Yuan (excluding depreciation). The total area of the store is more than 1000 square meters, having 4 floors, among them the Internet café is in the first floor, the hotel is in the 2-4 layers, with 4 servants, more than 30 rooms( all of them are decorated according to the normal hotel standard). I signed the 10-year leasing contract with the landlord last year (on May 16, 2013), with the annual rent of more than 200,000 Yuan. So I don't want to demolish the houses, which can guarantee the living of my whole family. If it was demolished, how can I return the debt of millions of money? So I expect no demolition here.

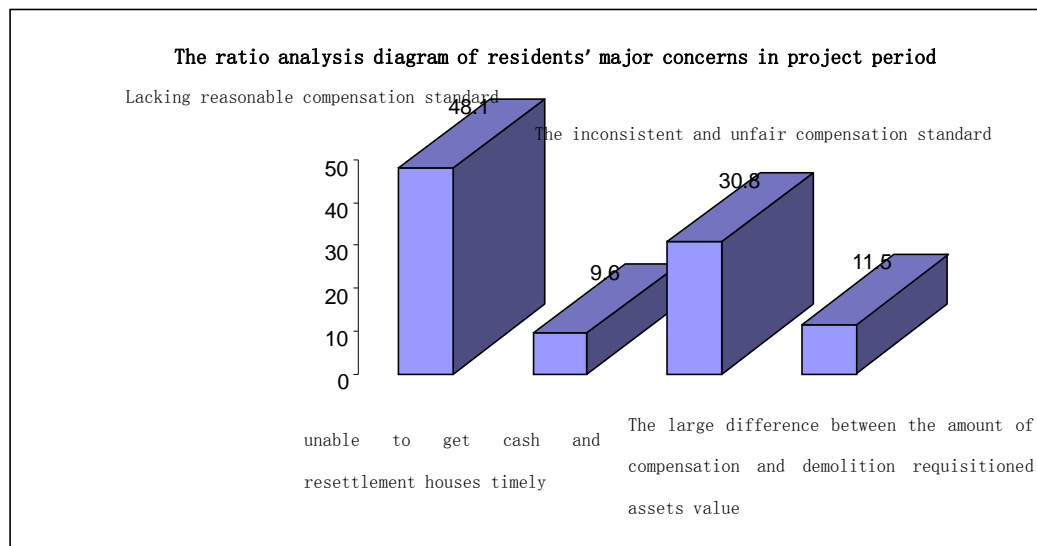
#### (4) The interests appeals and suggestions of the demolished enterprises

Although the lands the possible affected enterprises rented are the construction lands of the country or the village collectives, the lease is very long and it's not yet expire, so during the relocation, the enterprises' interest demands must be considered. The interest appeals of enterprises mainly lies in the amount of the compensations, they hope the government can give them full compensation.

## **5.5 Some important questions needing considering during the relocation.**

In recent years, the social stability problem caused by the land requisition and demolition is outstanding in some areas' urbanization construction. From the research we can find that although the scale of the land requisition and demolition involved in the project is small, the possible social impact cannot be ignored, special attention need to be paid in the following several aspects:

For example, when asked "if your house may be demolished, what do you think is the thing you worry about most in the process of compensation and resettlement?" The choices that "lacking reasonable compensation standard", "unable to get cash and resettlement houses timely", "the large difference between the amount of compensation and demolition requisitioned assets value" and "the inconsistent and unfair compensation standard" enjoyed a higher proportion. Among them, the proportion of "lacking reasonable compensation standard" and "the large difference between the amount of compensation and demolition requisitioned assets value" are respectively 48.1% and 30.8%. Actually, to some extent it reflects the mistrust of the residents to the relevant government departments.



**Diagram 5-7 A ratio analysis diagram of the major concerns of residents in project period**

## **6 The influence the project has on the city traffic during the construction.**

Apart from the large influence on people's production and livelihood, the project's implementation, especially the fully spread construction of BRT, will have an influence on Urumqi's overall transportation. The research group made social assessment especially on the overall project preparation, project design, land requisition and compensation, etc. As land requisition and demolishing involves a lot of aspects, mainly about the opinion of landless people, so we will discuss it in the next part.

### **6.1 Preparations before the project construction**

Various preparatory works should be done before the construction, such as the detailed investigation of the program content; previously cooperate with the relevant department to determine the plans of requisition and demolishing; increase the publicity of the demolition and relocation policies to inform the residents of the importance of the project construction, and to gain more support of the project construction from residents; billboard on which writes the name of project contractors, construction supervision and local EPA hotline numbers and contacts name should be set up at the entrance of the construction site, for the convenience of people's contact with the relevant departments.

●Full preparations should be made before the project construction, e.g. repairing the plumbs and heating lines simultaneously to avoid excavating the road repeatedly.

**Urumqi Water Bureau, Song Jianwei, Han nationality, 40 years old, bachelor's degree, the director of Water Supply and Drainage Administrative Office:**

The underground utilities started to be built in the 1950s and 1960s in Urumqi, expended from several miles to over a thousand miles. Renewal and transformation of the underground utilities were carried out frequently, nearly every year due to continual transformation of the city. The renewal and maintenance of the underground utilities were generally carried out in accordance with the road construction. The government needs to negotiate with related departments such as those in charge of water supply and drainage, power, heat distribution, fiber optic cable, fuel gas, high voltage wire and so on to avoid frequent excavation. In the past, the underground utilities were at both sides of the road. However, some underground utilities have become under the traffic lane with the broadening road. The underground pipelines' capacity is limited, so if we put BRT lane on the pipelines, the likelihood of accidents will increase largely. About the year before last, example like this has appeared at Changjiang road. The underground pipeline broke at that time and resulted in foundation settlement and leakage. They could only retain the damaged place in an enclosure and BRT has nothing to do but to bypass.

I think that the city construction now is arranged previously, not so blind like before. All the planning of the river network as well as pipeline network is kept by the Planning Bureau. My suggestion is to make better planning, to arrange overall and make specific water planning according to the city overall planning.----interview transcripts of first group on March 13<sup>th</sup> 2014

●Make sure to inform the affected before project construction to make residents and commercial tenants prepared previously. This project not only mobilizes medias, but also make use of the communities so as to minimize the loss brought to the nearby civilians.

## **6.2 The relevant problems needing special attention during the construction.**

●Seize the time to construct after starting the project in order to reduce effects on residents

**Wang Xiuzhen, female, Hui nationality, 76 years old, primary school graduates, retired worker:** It would be the best if the construction is not fully-closed. Partial construction would be best for BRT. Some main bus lines should be kept to not affect our normal life so badly. ----interview transcripts of first group on March 22, 2014

●Strict quality control should be taken during construction and strengthen

**management for unit in charge of construction.**

**Urumqi Water Industry Service Center, Du Juan, female, Han nationality, 46years old, postgraduate, director of the service center:** I want to highlight job specification. Our unit is in charge of water supply and sewage and planning for BRT1 and BRT3. But the construction unit lagged the work behind, they contacted us after platform was constructed, which resulted in a lot of frequent problems such as rain water pouring in, polluted water pouring in due to the temporary migration, not good chasing slop and insufficient buried depth. And those contradictions are not solved until now.

**●Pay attention to residents travel especially to children's safety on the trip to school during construction.**

It is impossible to guarantee the students' safety when students cutting in with vehicles and with some street pedals occupying road after school over. Safe and civilized construction are required as well as some warning signs and guard railings if started the project. Children are active and restless, so special attention should be paid on their safety. It will be the best to construct in summer because construction in winter will lead to inconvenience and traffic jam.----interview transcript of second group on March 15 2014

**●Pay attention to environmental protection**

Regular water spraying is needed to reduce the dust and keep the road clean. Roads should be constructed in advance to be used as the construction road combined with the road planning within the depot, and avoid the large amount of dirt produced by dirt road transport vehicles. Before earthwork construction, gate, enclosure, level ground, entrance sclerosis and vehicle washing devices must be prepared in advance. Construction units and the building units should work in strict accordance with the project construction site management standard made by the construction administrative department, comprehensively carry out the standardized management work of the construction site, and govern the construction waste residue problem from the source.

**Ms tam, Han nationality, female, 50, primary school degree, owner of the tobacco and alcohol supermarket:** my supermarket is in the intersection, so customers are driven away by the noise and dust during the period of construction. the customers of my shop mainly come from the floating population. Surely the project may bring some inconvenience, but for the future convenience, I am still in support of the project. I will consider to change a place during the construction.--- - on March 17, 2014, the first group of interview transcripts

**●Hope to participate in the project construction**

In the research, many people questioned on the project quality, which is mainly resulted from the severely damage of BRT1 after for 3 years' running. People want to organize their own strength to establish folk supervision organization to supervise



other construction of the BRT lines. They think this can not only guarantee the engineering quality, but also can enhance citizens' awareness to love and protect Xinjiang with concrete actions.

**Ming zhongli, male, 55 years old, the Han nationality, Tianshan Corporation Property Office director:** some roads of BRT1 line is damaged. These roads were designed and built in professional measures, but frost boiling occurred in some places due to the insufficiency of the constructor and the supervisor. So I am wondering if we can organize the public to form public supervision team in addition to the professional and official supervision unit. All roads faults and damages will naturally affect the BRT lines' running speed and efficiency. The government had invested so much money, which is also our citizens' money. If the identified contract is three or five durable years, although we citizens know nothing about technology, but we know the result, we can participate in it, we can judge if the road was in accordance with the stipulations of the contract, if contractor was cheating on the workmanship and materials, and whether supervision party fulfilled its obligation. If some problems appear, the government have to spend our taxpayers' money to repair the roads.---- on March 20, 2014 the third group interview transcripts.

## **6.3 Special attention on the people-intensive public places within the project area**

### **I The influence of project construction to school:**

Along this project involves plenty of schools, after integrating the opinion of each school, investigators believe that the main problem of project construction is how to guarantee the traffic safety of teachers and students as well as a quiet learning environment.

- The bus station should not be set up at the school gate. First, the bus station is so noisy, which will affect the school's teaching environment. Second, if there is a bus stop, too many buses and people are unfavorable to the student's safety.

**Zu Biya, Uyghur, 42 years old, junior high school degree, security police of the traffic brigade northwest squadron of the sixteenth primary school:** There are lots of students taking the bus to the sixteenth primary school, the private cars transport students to school, stop at the side of the road and go away. The flow is big at the school gate, we guard at the gate of the school study time every day from 9 to 10 in the morning;13:30 to 15:30 at noon;17:20 to 18:50 in the afternoon. We are in charge of students' safety to cross the road, the speed is fast, which can be seen from the smooth speed bumps..BRT4 is not suitable for building the platform at the school gate, the students get on or off, may cause potential traffic trouble when crossing the street. I suggest when building BRT4, traffic lights should be installed at the gate, in front of the door is viaduct, so zebra crossings and each lane route signs need to be drawn to ensure people and vehicles in their own ways. ----The second interview record on

March 28 in 2014

- The bus stations near the school must have a safe crossing facility, whether overpass or underpass, all need to do well in the lighting, preventing slipperiness, and the rain flow backward security work.

- The planning route construction near the school should be arranged in weekends or summer, the material transport routes should also be far away from school.

- During the period of construction, the safety and smooth transport of school and campus should be guaranteed.

## **II The influence of the project construction on the mosques**

The mosques involved in the project are the Heishantou mosque, the mosque in the north of west bridge and Kazi Bay mosque. Islamic scripture mosque is only open to schools, not to the public.

- The Heishantou mosque

The Heishantou mosque is in the charge of Jinfengyuan community at the Shiyouxincun street of the new downtown area. It's a mosque of Hui nationality kind, there are about 20 people coming here to worship everyday and about 300 people on Juma days, most of them are of Hui nationality(80%), a small number of Uyghur(19%), Kazak and other residents living around, as well as around 10 foreigners who do business in the nearby electrical and mechanical market. There are will be more people during the festivals, which may reach 600.

The imam and other members of the mosque management committee support the construction of BRT4, but they haven't heard of any information about the building of BRT so far and they worry that the widening of roads will directly affect the mosque. The mosque is almost on the side of the road and has not been repaired for many years. Now, it has become a dangerous house. The mosque management committee have had communication meeting recently, discussing how to restore the facades and bacon field of the mosque and called for donations from people, ready to start to restore it when the weather gets warmer.

For the possible effects on the people of mosque, the imam Du wenliang introduces to us: "If BRT4 starts to construct next year, it will definitely have an impact on us, both on the residents coming here to worship and on our facades. There are five facades rent out, including hardware, repairing shops and so on, this belongs to our mosque economy, with a yearly income of 160-170 thousand Yuan. The building of road will inevitably influence us, but the difficulty is temporary, we can overcome it."

As for their suggestions for the project, they are mainly concentrated on the following aspects: The first one is the civilization construction; The second is that they hope the natural gas pipeline and the plumbing pipe problems can be solved together with the building of roads; The third is setting aside the pavement during the

period of construction, offering convenience to travel and for people to go to the mosque on time.

- The mosque in the north of West Bridge

The mosque in the north of West Bridge stands in No.165 of Northwest Road, and it was moved from the Xinhua printing plant of West Bridge(next to the West park)in 1988, with 3 floors and an area of over 1000 square meters. People who go to the mosques are mostly of the Hui nationality and some are of the Uyghur nationality who are doing business around, most of them are the floating population. There are about sixty to seventy people going to the mosque at usual and about 500 people at the Zhuma Day.

**Ma Jinguo, male, 48 years old, Hui nationality, senior high school, the imam of the mosque in the north of West Bridge**, said“ We all support and agree on this program. It is great ! we usually propaganda to build roads, bridges and schools, all of these are charity. We don't object to it, just hope that it will be a civilization construction. There should be more watering to reduce the amount of dust in the air. Besides, setting aside pavement for the convenience of people's going out and going to the mosque. ——The second group interview on March 28, 2014.

- The mosque of Kazi Bay in Midong district

The mosque of Kazi Bay was built in 1989 for the Muslims in the Kazi bay to worship. According to the introduction by imam Ma Fucheng, there are only about ten people to do five times of Naimazi, but there are much more people coming here on Zhuma Day, the amount of which is over 300 to 400. The age of prayers varies largely, a little more than 1/5 of them are the youngsters, more than 2/3 are the middle-aged and the elderly. Ma Fucheng thinks that the construction of lineBRT6 has a great significance on people lives in Midong district: it will be more convenient for the residents to go out after the construction of BRT6, In the past, there was only No.13 bus from Miquan to Urumqi, it is No.613 bus now. It is really too hard to take the bus during the rush hours, because there are many people standing at the bus station.

——The transcript of interview from the fourth group on March 18, 2014.

- Islamic scriptures school of mosque

Islamic scriptures school is a specialized institution for training religious people. According to the introduction from the school leaders, the students are not fixed, and the school holds training once every 20 days for the imams from all around southern and northern Xinjiang. Each has about 200 students, and they hold 10 times one year for a total of about 2500 people. They conduct the training course from the middle of March to middle of December every year, and the rest of days are for resting. The students mainly are Uyghur, and most are from southern Xinjiang. Therefore, the students mainly go to south and to southern gate and Erdao Bridge, etc. They can take a bus or the No.7 line after it through the road and then change to No.3 line, and then

they can arrive at the destinations. It is really convenient.

They hold a training course for the imams from the Hui nationality, which mainly aims to train the imams from Dongshan district with about 50 to 60 people every term. And the training of the rest of 9 terms is for the imams from Uyghur, Kazak, and Kyrgyz, and most of them are from Ili and Tacheng prefecture of Xinjiang. The mosque attaches to our Islamic scriptures school, but it only opens to internal students. The school leaders highly agree with the building of BRT, and they hope that the setup of station sites can avoid some places around the school gate.

**Tursun is a 51-year-old man from Uyghur, he is a cadre of politics and enterprise and the office director of Islamic scriptures school.** In his view, when we set up the station sites near school, try not to set up them near the school gate, and it would be better to establish the station between the gate of school and that of community. Do not stuck at the gate of school, otherwise it will be crowded and inconvenient for students to access to and from school.

## **7. Main conclusions and suggestions**

### **7.1 Conclusions**

After the social analysis team organized a survey in the lines of proposed projects and related regions, which was aimed at the residents, enterprises and government departments that are affected by the project. We should know the main stakeholders' attitudes toward the project, some problems may arise, and their advice and suggestions to project. Generally speaking, whether the affected shops and enterprises or the regional residents, most affected people have a full knowledge and approval of the positive influences of the project, and they support the execution of it. They think the development of public traffic is an important way for improving traffic congestion of Urumqi and raising the living standards of residents, that is not only convenient and efficient, but also it will conserve energy and preserve the environment. And they also expressed their great understanding of the negative impacts to their life and work which come from the project. They hope the government and project construction units can pay more attention to some issues that related with public interests, that including the setup of stations, the increase of crossing facilities and pedestrian safety.

### **7.2 The positive influences of people affected by the project**

The implementation of this project will boost the whole traffic status of Urumqi, especially the public traffic condition. That will improve transportation environment, and optimize the infrastructure facilities for urban social and economic development. On the one hand, it will enhance the efficiency of inhabitants' traveling and increase the convenience, quickness and comfort level of traveling. On the other hand, it will

increase the residents' opportunities of development, improve their employment environment and quality of life. Therefore, all citizens are potential beneficiaries of this project. Our municipal government also becomes one of the potential beneficiaries because the project promotes local economic and social development. Meanwhile, the departments of government-affiliated such as traffic management and traffic safety regulation, which achieved higher grades at work because the implementation of project will improve traffic efficiency and safety. So the government and related departments are the advocators and active facilitators of this project.

The improvement of traffic conditions in the project area has led to the improvement of enterprises' investment environment, has increased the stream of people and goods and has improved the level of tourism service. Thus it propelled the local economic development, brought more opportunities to local residents, and enhanced dweller income level and standard of living. The residents with houses or jobs along the way of project have a higher rate of road utilization, they will get more obvious benefits, which consist of more convenient, safe and clean traveling, and convenience of going to see doctors for patients, going to school for children and going shopping for residents, and improvement of people's living conditions. In addition, due to the widening of roads, the safety of going out is raised for primary and secondary school students who often go to school along the roads of project, and the extension and optimized service of bus lines. And the improvement of workplace conditions and driving safety also bring benefits to the chauffeurs and passengers.

Through paid some compensation of land expropriation and house removal in the project, peasants whose lands are expropriated and residents whose houses are pulled down got rapid increase of income in a short time, which led them into the urban environment as soon as possible. The original agricultural production way and lifestyle of farmers whose lands are expropriated have changed, and the social security is provided to them to some degree.

### **7.3 The negative influences of the project**

The most obvious negative impacts of the project firstly, is that the land expropriation and house removal of the project have an influence on the living and production of immigrant families; and then is that, during the project period, it will bring a short-term obstacle to traffic and residents' traveling of partial regions.

#### **(1)The influence of the land expropriation**

For residents living in the project area (including the along roads of newly and extended building, terminal station, bus depot, etc.), their lands, houses, shops and others are demolished or expropriated because of project implementation. There are more than ten households will become landless farmers in Zhenxing village and Donggong village of Midong District because of the land expropriation. Eight households in East of Shuimogou District have to relocate because the rent decrease

from the landlord's self-built housing. About a hundred shops will be demolished at a nearby the northern suburb terminal, so the businessmen have to look for other stores fitting for doing business. The Sales compensation is relatively less for the businessman of renting. The companies within the Sangong depot had to move away wholly and the workers there also faced the choice of employing again.

The compensation and security will be on the basis of the system of land expropriation. Meanwhile, the life and the production environment of immigrants may change. The cultivated industry income will be affected due to the decrease of planting. The productive way of some farmers will be changed. After the housing demolition and relocation, the demolished people will go through the process of resettlement. Most people, who live in bungalow, move to buildings. Their living style and neighborhood will be changed. After moving to buildings, some low-income people will undertake more pressure due to the increase of living costs. Domestic aquaculture and courtyard economy are difficult to continue nearly, so the income of this aspect may reduce. It is difficult for them to adjust the life. The families of minority, having many family members and many activities, move from bungalow to buildings. Immigrants will have a transition period to adapt to the new changes.

## (2) The Influence during the project construction

The affected people mainly live in the project area and nearby area. Due to the implementation of the project, the influence includes poor transportation, poor environment including noise and dust. It will bring security risks because of the increase of construction vehicle. During the implementation of the project, it will affect the personnel exchanges and the in and out of goods among the departments, companies, businessmen and so on. The business will be affected by the decrease of customers.

Due to the demolition of roads on both sides, the road will become narrower, like the roads of the Beijiao terminal. The traffic will become crowded at the junction of Suzhou road. It will be quite inconvenient for the nearby residents to go out. With the end of implementation, this kind of negative influences can only be eliminated. Of course, with the road of the area widening, traffic environment will be significantly improved, the people most affected are people benefit most, so these residents generally accept it.

## **7.4 Measures and advice on reducing the side effects.**

The adverse effects of the project mainly showed on the impact of production and life. During the implementation of the project, it will bring the inconvenience of traffic and the business of stores along the street. Apart from the impact about the inconvenience of short-term relocation and the bargain of compensation, the larger impact on the residents is the change of production and life unwillingly. The changes including gave up the main productive way of plantation industry and the aquaculture industry and turned to taking up business and work and so on; gave up the lifestyle of

living in bungalow to living in buildings. It can alleviate some of the negative effects through the adoption of appropriate measures.

- To the poor, the government should guarantee their basic life through resettlement.

(1) To the poor, the government should compensate their resettlement in line with a standard that the house area is not less than the minimum suite area of the appointed community, the price difference between the former houses and the resettlement houses should be paid by project construction unit.

(2) Government should expand employment channels and guarantee the income standards and living standards of the land-lost farmers and the relocated farmers.

(3) Government should take multiple measures to promote land-lost farmers' employment, strengthen their job training and provide them with employment information. And ensure all kinds of preferential policies implement for land-lost farmers, such as petty loan, to encourage them to carve out a career by themselves. In addition, government should support and encourage young people to work in kinds of enterprises, and offer a variety of professional and technical training and enterprise recruitment information for them to enable them to adapt to the enterprise work requirements.

● Perfect social safeguard measures and let the land-lost farmers have something to rely on when they get old.

(1) To widely publicize the social security policy for the land-lost farmers, and expand the scope of safeguard to make the protection be given where it is required.

(2) To ensure the land-lost farmers' social security funds to be delivered fully and adequately. Government should give out sufficient annuities on time to the qualified people, which can not only ensure the old man's life and interests, but also play the demonstration role for young people to pay the pensions on time.

#### **7.4.1 Advice on the government's role playing and its supervision on the project.**

(1) The government should build a communication platform for the BRT construction company as well as the various municipal administrations and transportation related departments, to make project operators have communication and coordination with those affected instead of government suffering all aspect of pressure completely, which contribute to the formulation of the policies.

(2) Supervision of BRT construction period should be on the premise of guaranteeing the quality of engineering. Shortening the construction period can ease traffic pressure, but if the road engineering is unqualified, it will not only affect the traffic in the city, can also lead to the public discontent.

## **7.4.2 Guarantee the affected people's right to know, to participate and to supervise the projects.**

The right to know the project of the affected people including the knowledge of project and the knowledge of negative impacts which the project may produce and its preliminary preparation. Sufficient knowledge will make the affected people to better cooperate and participate effectively in the project implementation and let the negative effects of the project to a minimum. Social assessment research itself is an effective activity that increases the knowledge and participation of the affected people to the project. Through the research, government can report the affected people's opinions intensively into an social assessment (SA), and finally into the resettlement action plan (RAP) and the ethnic minority development plan (EMDP).

- Give full consideration to the interests of stakeholders.

(1) Different degree of material compensation should be given to those affected shops and tenants. If they need to rebuild their shops, we should provide corresponding help and support.

(2) We should fully understand the opinion of the public in the road design, management and safety engineering.

(3) The affected people have the right to supervise the fair impartiality of assets evaluation and the implementation of employment policy in the land and house requisition, and so on and so forth. If those people affected by the requisition feel dissatisfied with requisition and demolition scheme and compensation standard, they can appeal in a certain way. We should let immigration fully understand their appeal rights and channels.

(4) For those drivers who need job-transfer training or employment training, the government and enterprises should give corresponding support, and pay more attention to the settlement of female employees. Pay special attention to drivers of 613 lines in Midong district, and the overlap of BRT6 line and 613 lines will have direct impact on the operating efficiency of 613 buses.

- Government should carry out related career training for line drivers in advance, and find the appropriate career, helping drivers who have troubles to achieve re-employment, avoiding reducing their family living standards.

- Strengthen the understanding and cooperation of the affected people through TV, newspapers, radio and other media and the propaganda of grassroots cadres. For those negative effects that may be caused by the project, we should propagandize and explain more systematically and step by step in advance, and ask the affected people to make preparation ahead of time, such as the immigrant removal and settlement, and the impacts on tenants along the road caused by road construction.



- The land acquisition and compensation standard should be open and transparent, the removal should be informed in advance, the project office should negotiate the related affairs such as immigrant removal, compensation and settlement, move transition, and employment.

- We should publicize and gather public opinion before road construction, make directly affected organizations and individuals such as schools, hospitals and religious activities places obtain the accurate information as soon as possible and make corresponding preparation.

- The adjustment of bus lines should be informed ahead of time and detailed, and reduce the impact on residents travel. Affected people often being dispersed and in the passive position, they lack participation in the initiative and participation path, the project parties provide participation opportunities and platforms in various forms, such as social assessment activities, consultations with affected people, setting up the project liaison of rural communities.

- In the project design, the extension width of roads and trend, the efficient participation of public will make the project more in lines with the real requirements; in the prospective of the project traffic management and road safety, we should fully know the suggestions of those affected people, which play a beneficial role in optimizing traffic sign facilities.

### 7.4.3 Advice on the road implementation of the project

The editorial research group gathered 50 suggestions about the improvement of project road implementation plan through interviews and symposium, in which there are 10 about BRT4 line, 9 about BRT6 line, and 13 about BRT6 feeder. In addition, there are also 4 suggestions on construction of static parking facilities, which has reference significance on perfecting plan of relevant roads.

#### **Main suggestions from residents along the BRT4 line:**

- They hope that the municipal government can organize a "three-in-one" reconstruction of Altay road by overall planning.** From the result of the survey about traffic volume, after the BRT1 line's getting through, to avoid the possible congestion, part of the users of cars adjust the route that they drive as usual, and they transfer to the adjacent and parallel path of Altay road. It leads to a very high flow of vehicles in Altay road now. The road conditions are not going well, which mainly show some problems such as the narrow road, poor road conditions, the old and obsolete underground pipelines with poor drainage system, a few overpasses, wet and slippery roads in the winter, and parking on the sidewalks, etc. The majority of residents along the road suggest that the reconstruction of Altay road, replacement of underground pipelines and building of BRT should be taken together, which is conducive to the economy of resources and funds and has an one-off influence on traffic. They also expect that we should reserve the pavements during broaden the

Altay road, and we should not parking on the pavements.

●**At the north campus of Xinjiang university gate of northwest road, we should rebuild the overpasses and underground passages to prohibit the parking on the sidewalks.** The northwest road lies between the eastern and western courtyards of the north campus of Xinjiang University. Previously there was an overpass built by the school, but it cracked because of the earthquake last year, so it was dismantled. At present, there are traffic lights for crossing the road. During the school time, breaks and lunchtime, more than a hundred students have to cross the road, which has great impacts on traffic. Meanwhile, there are cars passing and parking on the both sides of pavements. The residents think that there are hidden dangers for students and children to go to school and kindergarten. And the students and residents propose that we should remove the whole street of auto parts to suburb. We should reconstruct the overpasses or underground passages. They hope that we should return the pavements and no parking there.

●**Set up the stations at timber mills and demolish the garages under the viaducts.** Because timber mills are the hubs from Urumqi to Changji, the first stop is timber mill to the vehicles from Changji, and all of the vehicles change others there. The traffic is not so well at the crossing of the timber mill, and the garages have existed under the bridges for ten years, and damaged seriously, which spoil the cityscape and is bad for common people going out. People have to take a roundabout way or jaywalk if they want to cross the street.

●**Construct overpasses at the end of BRT1 line.** The machinery plant is the terminal point of BRT1 line and the larger crossing. The most major problem is that there are no overpasses and underground passages. The pedestrians jaywalk, which affects traffic. So we need overpasses or underground passages there.

●**Widen the Zhongya South road and change it to dual carriageway, and pay attention to the travel safety of students of Forestry department branch school.** Although there are underground passages, the position is not reasonable and distant. The pedestrians jaywalk to the opposite side to take buses, which leads to big security risks. There is a road when students come out from the school gate, but there are no any safety facilities like signal lights, deceleration strips and zebra markings, etc. Thus, security becomes an important issue. The residents think that we should change it to dual carriageway and to widen the road. We should install some facilities for crossing street at the school gate. The close distance between the companies of petroleum transportation and the bus stations at the system shop has an influence on traffic, so suggest moving the bus station under the crossover.

●**Broaden the Yingbin Road, repair fence in the middle of the road.** Characteristics of Yingbin Road: the road is too narrow, car flow is large, along the line are 5 refueling stations. The interchange of Taiyuan road and Yingbin road, Shanghai road and Yingbin road are congested with radical turns, is the accident

prone location. Residents suggestions: Road widening, add fence to the middle of the road, to build a footbridge or underground passage, keep the green belt.

●**The planned road for BRT in Tianshan old town district is too narrow, and can only share roads with the social vehicle lane and cannot establish a special channel, so it can not embody the advantage of bus rapid transit, therefore, hope to be able to consider carefully whether must build BRT.** Tianshan District is the old city, and the main business district of Urumqi , roads here are too narrow, traffic flow is large, there is always being traffic crowded phenomenon. Roads in Xinhua South Road, Large and small West Gate area are too narrow . Especially the Large and small West Gate area, is an important commercial district, person flow here is large and has large floating population, there are many disadvantages in the construction of BRT here.

●**The large people flow and traffic flow in Large and small West Gate area increases the stability maintenance pressure.**

In view of the Urumqi's overall situation of social stability, the BRT security operation is a top priority of the city residents. In case of emergencies, the road is blocked, personnel can't be evacuated, the police, the police car and fire truck cannot be rushed to the scene in time. If construct BRT, the stability and risk factors are more and more serious.

●**The starting point of the BRT stop in Nanjiao passenger station should be as close as possible to the passenger station.** Because passengers coming to Nanjiao passenger station mostly belong to the long-distance travel, if the station site is too far away, for one thing, it is not convenient for passengers and for another, it will increase the amount of "black" cabs which usually charge too much. But there are too much luggage to carry, the passengers have no choice but to take those "black" cars. These problems have become quite prominent at present, so it's better to set up the stop of Nanjiao passenger station in front of the hotel beside the passenger station.

● **The majority of residents reflect that Yingawati road is not suitable for the construction of BRT.** The Yingawati road is narrow with a bridge, and also belongs to Shanghetan highway, so the vehicles coming from the Large and small west gate, the district hospital and Unity Road direction are gather together down the Unity Road, causing the vehicle congestion in the south. There are also production departments such as the plastic factory, flour mill and the 30<sup>th</sup> middle school here. Many traffic accidents have occurred here since 2012.

**The main suggestions from the residents along the BRT6:**

●**Connect the BRT6 line and the other BRT line directly, so that the citizens of Miquan city can enter the city directly.** Residents along the project line also hope that BRT6 can directly connect with other lines , so they needn't to go out of the station to take bus to other places of Urumqi .

●**The road near Beijiao passenger station is too crowded, proposal to widen**

**the road.** The bus station of Beijiao passenger station has 8-10 lines, with two traffic lights before and after, and with narrow roads as well as the green belt. The number of vehicles from the direction of Hongguang mountain has increased rapidly after the road construction from Qidao Bay to Hongguang mountain, causing the great traffic pressure, so we suggest diverting traffic in the direction of Qidao bay and Hongguang mountain, to extend the crossing time of the intersection of Suzhou road and Southlake north road of the traffic light in the direction of south and north and left.

●**Don't change the driven route of No.906 bus during the period of the road repairing.** No. 906 bus is the passenger security of the drivers who were sent to 102 Regiment. In the past, when building the road it occurred that the buses didn't get into the north passenger station, and passengers chose to set out from other passenger station, so the regular bus drivers' economic income had been influenced badly.

●**Set up the crossing facilities in the intersection crossroads of the east of Kashi and the south of Mi Dong road.** Mi Dong road is very wide and the speed of cars are quick, but the line sections so far only have four lanes, there are too much traffic and already come into being a bottleneck, and traffic accidents often occur there, so we suggest adding crossing facilities. But the reply of relevant departments say it's national high way, so it can neither build bridges nor set up decelerating belt. We hope the government will focus on the problem and find a reasonable resolution.

●**Suggest setting a traffic light respectively in the intersection of Xianghe Bay and ErGang farmer's market.** The two crossings are crowded areas, there are many office workers, students from Jiangongshi 4<sup>th</sup> and 79 middle school, now for the lack of traffic lights and crossing facilities, young people are afraid of crossing the road, not to mention the elderly.

●**Suggest constructing the crossing bridge or underground passage at Bajiahu and Kazi Bay as early as possible.** At present the development of Bajiahu is very fast, around it are a finance street, Greentown lily office-bearer residential area and so on which has been almost finished. Kazi Bay cement plant district also build many new business residential areas, so it should fully consider the old people's travel characteristics, to suggest building the crossing facilities in advance, to avoid adding relevant facilities after traffic jams and influence people's formal life.

●**Suggest setting up temporary station in Kazi bay during the project construction to shunt vehicles .** The cars in northern suburbs station sent to Fu Kang, Jimusar, Mu lei and Qita all need to pass by Kazi Bay. From every Marches to Septembers, there are many migrant workers from railway station, they either take the No.906 bus or in the mini bus to northern suburbs station to take a bus. If it's inconvenient for passengers to come to northern suburbs station, it's better set up a temporary station in Kazi Bay for the running cars of the northern suburbs station, and then passengers can wait for bus at Kazi Bay.

●**Suggest setting up station between cement mill station and LiaoYuan Street station.** De KongErGang community is an aging community, at the same time ,it is also a community which has more people who live a difficult life or the vulnerable group. Its aging population has reached 23.3% and the number of the minimum living standard people is 360. In terms of the station setting, we suggest setting stations

between the cement mill station and LiaoYuan Street station for the convenience of the elderly.

●**Suggest setting up temporary station or traffic guidance sign in time .** During the construction, temporary stations or traffic guidance signs should be set up in time at the surrounding of Beijiao station, Mi Dong station, school (chemical engineering school , Jiangongshi 4<sup>th</sup> school, 84th middle school and so on ), for the sake of the crowded evacuation in the people concentrated area.

**The major suggestions put forward by the residents living along the branch line of BRT6:**

●**Suggest making the exits and entrances of BRT linked the underpass to the slot of BRT site like the operational approach of No.1 Friendliness station.** In this way, the passenger and the ground traffic would not interfere with each other, not only meet the BRT demand, but also satisfy the citizens' need of crossing the streets.

●**Reduce the seat design for BRT in real demand.** Many citizens proposed that the back of bus have seats in both sides but the middle is too limited to stand, it is crowded when people get on or off the bus. We can design a few seats because of the clear streets of BRT.

●**Set up highway overpass or underpass at the intersection of the railway station site.** It is crowded there, there are many people waiting for crossing the streets. On account of the regulation, there is no red light when drivers turn right, we can't ensure the safety of the pedestrians when they cross the streets in the crowds. The drivers had to slow down to avoid traffic accidents. In this way we suggest constructing the crossing facilities to keep pedestrians safe.

●**Broaden Songshan Road.** It is the only passage from development area to upper west side. But it was narrowed and only has two lanes. The distance of road is less than one kilometers. Both sides of the road still have space to broaden, it is no necessary to demolish nearby buildings. The locals think that it is necessary to broaden the Songshan Road.

●**The bus should be opened to traffic in BeiWei 3<sup>rd</sup> Road.** It is a strong desire and expectation for area residents. There is no running bus in this road at present, it is inconvenient for residents to go out. They are satisfied if there is any bus.

●**Adjust BRT6 branch line at the site of Railway Bureau.** It is suggested that BRT can begin with the west road of Hebei when it starts from west to south. In this way can we enable the ease of movement and release the pressure of the two major sites (Er Gong, railway station)for changing direction.

●**Suggest reducing the limitation on BRT about the traffic lights in the non-trunk.** People think that the faster the BRT, the more likely the advantage of urban public traffic can be made full use of. Only in this way can we reduce the conflict of right-of-way. Only strengthen the power of public transit, can we accomplish the goal of “letting the bus first and leading a environmentally-friendly

trip ”.

●**Prepare for the preliminary planning and design for isolated stretch of road in advance.** To plan the city development with the idea of traffic priority. We all witnessed the developing speed of the northern area, and we all think it equipped with good traffic roads condition. Build roads in advance to avoid the increasing number of residents proposing to rebuild roads. Not only influence the living of residents, but also increase the costs of construction.

●**Increase the green area of roads.** The green area of Urumqi is limited, we should fully consider to reserve the present green area rather than demolishing it when we construct the branch of BRT6.

●**Construct BRT on the viaduct not the ground.** Many citizens agree with the pattern of Xiamen, especially the owner of private cars. In the recent years, the area along the BRT6 branch line has been developed into a business residential community, so many families here possess private cars, and thus they are in favor of learning from Xiamen mode to relieve the traffic congestion here.

●**Extend BRT6 branch line to Bagang.** Bagang locates between Urumqi and Changji. Now, two schools-Xinjiang Modern Vocational and Technical College and Urumqi Vocational University have already moved in with more and more students. Besides, there are newly developed housing estate like nature ideal cit; many companies in economic development zone are moving in. But the transport in Bagang can not be satisfied. There is only No.307 bus with capacity of ten person and charge 5yuan each time. It swarms with people every time and has brought a lot troubles to the residents of Bagang to go out.

●**There are too many stops from Changsha road to Tianjin road, while too little stops in Siping road.** Residents suggest that the stops should be set at the residential area. Boxinyayuan community and Langyueshengjin community have already become big residential zone but there are only one stop in Siping road from present designed route map. Only one stop is not enough for a few places. They suggest one stop should be sited in front of drug factory. In the section of Siping, one stop should be sited in front of First Prison, one at Siping leather factory, one at Siping road gas station. Stops choosing should be considered in the long run because there will be north town new zone. We should take later housing estate developments into consideration.

●**Pay enough attention to the travel and interests of low-incomers and other vulnerable groups.** For example, the design for BRT branch lines “Tianjin Road” stop is unreasonable. The distance between “Tianjin road” and “ErGong road” is too large.

“Tianjin road” stop can only satisfy one nearby housing estate, Jiahuayuan. But the self-established buildings of Ergong near “Tianshan Share” has large mount of floating population who all belong to vulnerable groups. It will be convenient for

those people to go out if the stop is set in the cross road of Xinti Lane and Hebei road.

### **Main suggestions for static parking facility**

To ease the parking pressure, we should take “planning” “construction” and “management” into consideration.

- Determine our city’s development strategy of minibus and parking combining with “Urumqi transport development white paper” to lead to “co-ordination of supply and demand”. Try to realize the parking space to 0.9-1.0 per car as soon as possible.

- Establish strict equipped parking lot completion acceptance mechanism. Acceptance certificate of completion must be officially released after the newly built equipped parking lot pass acceptance check by parking competent department. The failed ones should make some corresponding remedies in order to enlarge the scale of the equipped parking lot gradually.

- Fully increase the present parking space usage ratio to ease increasing prominent parking contradiction by measures like strengthening parking management, adjusting parking charges, establishing parking guidance system, staggered parking and so on. Under the current condition, we can differentiate parking fee and management to increase the present charge standard properly, to adjust the parking demand and transport demand, to decrease the proportion of drivers and push forward the industrialization of public parking lot.

- Suggest strengthening the parking management in the road at daylight and setting schemes like forbidding parking, or allowing short-term and long-term parking; As to the increasingly prominent old residential parking contradictions, it’s suggested to implement the “open all night inside the road parking” scheme to relieve people’s parking problem.

## **7.4.4 Suggestions on improving Urumqi traffic condition and its service level**

The research group received altogether 9 suggestions on improving Urumqi traffic condition from the public through interviews and forums. These suggestions from the public participation and consultancy were put forward by those who have related self-experience and better understandings of the project, so they have some referential values on the improvement of the urban traffic and public transport service.

### **Suggestions on improving the city traffic condition**

- The improvement and reinforcement of the BRT lines

The BRT lines should continue to be integrated to increase the speed of line operation and coverage scope, and the modification of the BRT platform hardware facilities should be considered from the following aspects: the platform should set the intelligent display of the parking information of line-sharing stations; Transforming

the BRT south train station square; Considering the opening of wifi ; the Bus TV should display the dynamic name of the station, as well as the main spot near the site, on the one hand, to make the public transport system service more humanized, on the other hand, to make the floating population's travel in the city more convenient; Suggest setting up information platform and adapting the QR code, so the users can scan it by their phones to add the micro chat of BRT for the site and other detailed information query of BRT line, and put forward reasonable suggestions to the system timely, which can provide reference for relevant departments; Suggest separating the green belt and the special line with rock road when constructing the special line for BRT. In this way can we avoid the seepage damage on the road surface from the irrigation of the green belt or the melting snow; Consider improving the top design of the BRT platform, for the roof is not sunshading at all and extremely hot in summer for people to stand under, so the sunshading of the roof must be taken into account; Consider applying for solar energy and install solar panels, for the use of solar energy is not only environmentally friendly but energy-saving; The staff uniforms should embody Xinjiang elements; For the conditional sections, we can consider opening both of the ends to improve the efficiency in and out of the station to avoid the crowd congestion; Different lines of vehicles should be painted in different colors, for color can leave people a deeper impression than the numbers; Suggest using a resin material to make BRT separating fences; Suggest adding the brand that have the electronic instructions of BRT transferring. Every car and every platform should have line identification, and it's better to use Chinese, Uighur, and English for identification; Suggest learning from common bus, get on at the front door and off at the back door to avoid congestion in the door accessories.

- Improving the bus-only lines

The construction of the bus-only lines can improve the speed of public transportation, but it involves the allocation of road rights which concerns with about 10 departments. We hope those departments can have a tacit cooperation and fulfill their obligations properly.

- Promote the traffic management level, especially in the Midong district

Midong district was called Miquan city before it was classified, traffic facilities here are not complete, and some facilities such as traffic facilities, denotes and signal lamps are inferior and older than those in Urumqi. So, those facilities should be upgraded and rebuilt, and electronic capture and photograph of running the red light should be involved. Midong district is located in suburban area, this place is remote with few vehicles. There are no guardrails in the middle of roads, there are many motorcycles and tricycles and they turn around at random. Because there are many migrant workers and farmers, they have formed these habits for many years. They cross the roads and run the red light at random because of the weak awareness of safety. So we should intensify the publicity and education of traffic safety to cultivate good behaviors of residents' traveling.



- Quicken the rebuilding and construction of main roads and its branches

Due to the constraints of geographical condition, the road networks of Urumqi are congenitally deficient. North-south trunk roads have limited resources. BRT4 line sets up a BRT-only lane in Altay, that will further occupy the road resources of cars.

- Speed up the transformation and construction of the sub-arteries

Due to the constraint of geographical conditions , Urumqi road network exists congenital deficiencies. The north-south trunk road resources are limited, if special BRT lanes were set on Altai Road, it will further take up the car road resources, and in the case of lack of alternative route, could lead to a more serious congestion. Therefore, in the process of the planning of BRT lines, we should also fully consider the road traffic conditions of BRT parallel lines which can meet the needs of car users to make a detour, and it is necessary to properly make some engineering reconstructions to improve the road traffic conditions of parallel lines, to guarantee the demand of car travel users.

- Previously plan the east-west line throughout the city and increase the investment

Now the west and east area, such as the east Hongguangshan residential circle, and the vicinity of Qimashan Mountain to the west has formed a large mature residential circle. With the further development of west expansion and east extension in the future, the construction of BRT lines is conform to the long-term planning and development of an event which is the livelihood of the people in Urumqi. Whether BRT6 branch line or the other bus lines, will obviously improve the capacity of south and north of the city's transportation.

- Improve the existing bus hardware facilities

The improvement of the bus station including ordinary bus station and BRT bus platform. At present, the public put forward more suggestions on the modification of the BRT station, and the improvement of the common bus station include: increase waiting space, complete the shading and bus site selection and building work, which has to avoid the intersection or places with dense stream of people to prevent the occurrence of security incidents.

- Further improve the level of business and culture quality of bus service

Along the survey there are still many residents reflected that they have seen some extreme events in the bus to the research group. These a few extreme events directly affect the overall image of the bus drivers, so we hope the bus management department can strengthen management to further improve the service level of bus drivers.

- Optimize the bus lines and enlarge the transit coverage

For those lines with too much overlaps or detours, we should combine them to increase the frequency of bus travel to north area to meet the residents' travel demand; for the no bus area, new bus lines should be opened up.

- Contact more with the public, listen to them and take their good advice

In the research, people think for the similar large projects, the public's opinions should be taken into consideration. For example, when the Suzhou Bridge was built, there is no one to consult the people, which led to the low living quality of people near the viaduct: no light under the bridge; buildings are too close to the viaduct, some of which even can be touched; the pollutant under the viaduct cannot be disposed timely which greatly affected the daily life of the nearby residents. So this time we did the environmental evaluation and social assessment first and gained a lot of support from the public who think it as people-oriented and for their real benefit.

### **7.4.5 Advice on the land expropriation and house removal**

It is possible for land expropriation to create social instability, which means it won't be a peaceful voyage during the expropriation implementing, so we need to pay special attention to the potential individual conflicts and keep alert as well as supervise the possible risks during the programme.

- Enhance the publicity of the policies on land expropriation and create a good atmosphere of social supervision by the public.**

Through various new media such as television, broadcast and newspaper, to inform the public of the long-term improvement on social welfares brought by the expropriation program which include the perfecting of the urban road network construction, the promoting of local economic development, the propelling revaluation of land around them, the increasing of other residents' chance to get rich and the facilitating of the growth of certified property operation. Although some residents will lose slightly on profits, or it will make inconvenient for their life during the transformation period, even bring emotional pain and anxiety, etc. That is a trade-off of pros and cons, local inhabitants will be the main beneficiaries. Thus, it is necessary to continue to strengthen the propagation of the policies of land expropriation and house removal, to play a leading role of public opinion.

The right of supervision of objects affected is a requirement to guarantee the implementation of project as planned. Objects affected have rights to supervise the fairness and justice of the assets appraisal and see whether they can pay compensation expenses in full and on time. They have the rights to superintend the construction of resettlement housing and preparation of transitional housing, and supervise the implementation of employment policy. If the objects or immigrants affected by the land expropriation are unsatisfactory with the scheme of the program and its compensation standard, etc, they can reflect their problem to the following

institutions in turns on the basis of the satisfaction to corresponding solutions and explanations: village committee or community's neighborhood committee→town government or sub-district office→district state land bureau or demolition office→the municipal land bureau or demolition office→administrative reconsideration or administrative litigation. We should inform the immigrants of detailed information about route of appeal and commission institutions through meeting, notification, and information books and many other ways, and make the immigrants fully understand their rights of appeal and means of appeal. We should set up hotline for public participation, and the construction information of land expropriation should be shared with the public through media and all kinds of signs of construction site. We should timely notice to relevant authorities about suggestions and views of public. The hotline should be on duty for 24 hours, and we need to establish strict system of register, report and feedback.

The compensation for demolition should adopt a negotiation between project office and relocation household, which should be open and equitable. To unify compensation standard and publicize beforehand, and extensively advertise and let public know. The compensation standard should be open and transparent. When it comes to the demolition measurement and calculation, they need to full consultation with objects affected.

**●Set up the people-oriented awareness, to use a scientific method to the demolition, to ensure the rights and interests of the demolished households.**

We should be innovative in the during the demolition work, to use a scientific and effective method of demolition, especially to make every effort to apply the working methods which have been proved effectively by practice to land expropriation and house removal. For example, during the demolition of island cities, we should consider the interests of the demolished masses at our best, to arrange at first and then to demolish. We should implement the four collective patterns, namely the site selection, planning, submission for approval, and construction at the same time. For relocation households of demolition housing and business housing, we should do the job of publication and notification as prescribed, and ensure their rights to be informed.

The workers of the relocated enterprises can participate in resettlement and construction of the project and get pay from working, thus to realize employment again. The enterprise is also in support of the project in this way and increased their understanding of the project. This implementation of participation requires the coordination and promotion of the government and various organizations in the project area, as well as the contractor's positive response for the needs of the local residents.

Respect the immigrants' right of choice in compensation and resettlement, and bring convenience to people who want to re-select their living area. Immigrants can choose pecuniary compensation or housing compensation. During the demolition, we

should respect the will of the affected people on the basis of satisfying the project plan, and negotiate with the affected on whether pull down all the courtyard and houses or remain part of them, and give them the corresponding compensation according to the relocation situation. Under the premise of consultation, carry on the reasonable replacement. Respect the immigrants' right of choosing the placement, and provide convenience for them to choose new neighborhood and keep the social relationship.

Compensate properly for enterprises and merchants of demolition. If they need a change of construction, corresponding help and some support should be provided. Compensate properly for the demolition of the shops and enterprises. For those who use or rent the shops, provide them the priority to choose the shops of newly built market, and give them some support or discount for buying or renting shops. For enterprises affected by the demolition, if need to be relocated, the local government should give help in terms of location.

For people in poverty, resettlement should ensure their basic necessities. For those poor families, their incomes are generally low, and their existing housing conditions are generally poor, so there is certain difficulty in the relocation and resettlement. So for these vulnerable people, their original houses, no matter how small in area, no matter how poor in quality, compensation should be not less than the standard of minimum area of the installed houses of the community, and they also enjoy the corresponding compensation or the installed houses. The difference between the price of their original house and the price of the installed house should be paid by the unit of construction project.

Improve the social security measures. Enable landless farmers have the support when they become old. Enhance social security level for the demolished residents. Give wide publicity for the social security policy of landless farmers and extend the coverage of social security. To ensure social security funds of landless farmer have been fully delivered.

The pension should be granted on time and in full by people who meet the standard of receiving the pension. It not only ensures the life of the elderly and their benefit, but also plays an exemplary role for the young to pay pension. Continuously improving the standards of residents social security, with reference to the level of pension for enterprise workers

- Provide scientific proof with great care on whether to extend the center line to the left or right during the planning and design, to reduce the volume of demolition as far as possible, for the minimizing of the impact on residents is also the reducing of the cost on their resettlement.

Part of the routes need a larger volume of demolition (such as the road of Beijiao terminal). Make a detailed demonstration for the expansion of left or right side of center line of the road, and make reasonable adjustments on the premise of road design. If the adjusting of the cross section of the road can reduce the volume of demolition, especially the demolition of the “sensitive buildings”(refers to those buildings which will cause a lot of issues.), it will have great social benefits and economic benefits on easing the negative effects and enhancing its positive effects.

**●To reduce the disturbing to residents during the period of construction, strengthen the risk early warning, and do a good job of maintaining the stability on the land requisition and demolition.**

The land development centers of city and district two levels coordinate closely with city and district and town three levels of governments and functional departments, they also require and supervise strictly the civilization construction of construction units to reduce public nuisance. They can take following measures: to begin with, the rubbish, waste water and waste gas produced in the process of construction, which may pollute surrounding environment, should be handled timely by taking appropriate measures instead of dumping and discharging at random. Then the approaching and demobilization of vehicle in construction site should avoid daily rush hours, so as not to cause poor traffic and accidents around the construction site.

It's suggested to establish risk early warning system to troubleshoot unstable factors that occur in the progress of the land requisition and demolition. Government should strengthen the security protection of the land requisition and demolition site, all powers and officers can immediately put in place and each performs its own functions, as well as work in an orderly way, once emergency happened, even early signs appeared. The referred chief leaders must visit the site personally, to give commitment and reply to the problems which can be solved, to ensure the situation not be expanded and to control the unstable factors in minimum range.

**● To expand employment channels and explore and carry out re-employment skills training.**

Government should expand employment channels and guarantee the income standards and living standards of the land-lost farmers and the relocated farmers; should take multiple measures to promote land-lost farmers' employment, strengthen their job training and provide them with employment information; should ensure all kinds of preferential policies implement for land-lost farmers, such as petty loan, to encourage them to carve out a career by themselves; should encourage the original tenant merchants to buy shops by a variety of ways, such as soft loans, installment, to solve their financial problem; should support and encourage the relocated enterprise staffs to work in kinds of other enterprises, and offer various professional and technical training, language training and enterprise recruitment information for them to enable them to adapt to the enterprise work requirements.

For those who leave the land and unable to find a proper job in the first time, if

there are employment skills training needs, government should specially list certain budget in the compensation fees of housing collection to purchase training courses from the relevant institutions by the way of ordering, to train the relocated residents' skills.

- **To strengthen the supervision of the funds which specially used for housing expropriation to prevent the happening of the corruption.**

Government should strengthen the moderate supervision of the funds which specially used for housing expropriation and the asset legal usage, to avoid influence the relocated residents' vital interests due to improper asset usage and operation, thus appear "derivative" social instability phenomenon.

#### **7.4.6 Work out traffic management plans during the project construction and give sufficient attention to following problems.**

Government should pay attention to residents' traveling during the construction, especially the safety of their children to school. There are many primary and secondary schools along the road, students' safe passage and the school bus passage to school should be kept; or government make the construction period in the summer vacation period, so as to reduce the possible threat to children safe travel.

- We should make full preparation and coordination before the construction, including information sharing between the construction units and related municipal construction departments, to unify construction as much as possible; negotiating with traffic police department, bus company and directly affected units and institutions, such as schools and markets, asking them to make prevention and adjustment in advance; Sufficient publicity work, making the directly affected people earlier to get accurate information and make corresponding preparation, etc.; Fully mastering the underground pipe network condition along the project in advance, to avoid damages to heat, natural gas network, road traffic facilities and sewage pipe network caused by the project.

- Depending on the circumstances, and on the premises of not causing inconvenience to the public and reducing the traffic congestion, flexibly master the construction time and avoid excavating at the same time in order to reduce impact on the urban transport and residents travel caused by construction.

- The construction should be carried out in subsection and time division. It depends on the road specific situation to decide whether the road is semi-closed or totally closed during the construction time . Limit the working range when lay the pipe network. In the key transportation junction or road , we should reserve the traffic channel and arrange the route of transport vehicle and the running speed reasonably to avoid the flowing dust pollution and safety loophole of pedestrian.

- Set up warning signs. According to the condition of the road passage, it should include different kinds of cautions like reminding people of safety and reminding drivers to slow down and no entry. The warning signs should be written in both Uyghur and Chinese. In the channels with more people passing, we should set up more pedestrians and maintain the public security.

- After finishing the construction and recovering of the road, the ancillary facilities of traffic office must be repaired which include marks, lines and so on. The project should have budget in this aspect and be carried out by the unit appointed by the traffic office.

- During the construction ,the contractor should educate the builders on the national policy and customs and respect minority customs, the workers should keep clean at the water place of minority residence zone to avoid causing national disputation, and do not watch national religion activities .

#### **7.4.7 Advice of the minorities, the poor and the under-privileged on the project.**

There are many minorities in some parts of the project area during requisition and demolition, for example, there are many Hui nationalities in Donggong village of Gumudi town, Midong district. During the requisition and demolition, we need to pay special attention to the ethnic minorities' needs based on culture and customs.

- Pay full attention to the travel and interests of the low incomers and other vulnerable groups.

For example, the design of Tianjin Road site of BRT6 branch line is not reasonable, "Tianjin Road" station is far from the Ergong station. Tianjin Road site can only meet the needs of only one community nearby, namely the Jiahuyuan community, while the Ergong self-built buildings near Tianshan Share has a large amount of floating population, who are mainly the vulnerable people with low income, so the site should be set at the intersection of the Xinti Lane and Hebei Road to provide convenience for those vulnerable people's traveling out.

- Respect the ethnic minority residents right of choosing their resettlement and actively preserve and protect their cultural characteristics

In some relocated area , the ethnic minorities have been accustomed to the traditional courtyard life, we should try to reduce the removal on these houses in the project. For demolition behaviors which are inevitable, we should respect the resettlement way of relocated residents and give them plenty of options in resettlement ways. When it comes to the building placement, we should consult with the immigrants in terms of location, and tapes of the house and take the ethnic minorities living habits into consideration, relieve the life inconvenience and difficulty of adaption in the changing way of living; If it is concerned with monetary

compensation, the compensation fees should be able to guarantee their purchasing of the homestead, rebuilding the corresponding area of the house or buying existing homes and make it possible for them to change reconstruction.

- Constructors should respect the local ethnic customs and habits

The ethnic minorities involved in the project are mainly of the Hui nationality, they have their own unique habits of life, especially attach great importance to the diet of Muslim (avoid pig and pork) and keeping water clean. So the project agency should provide educations of the local customs and common senses for its constructors, especially the non-Muslim nations such as Han constructors, and ask them to respect the local ethnic habits, pay attention to eating environment, drinking water hygiene and the dispose of living garbage. They must avoid being topless in minority neighborhood and avoid incurring the wrath of the local minority people. The demolition signs should be designed as simple as possible, the tooltip as well as project announcement, etc should be written in two languages of Chinese and Uighur.

- Positively promote the employment of the minority landless peasants

For ethnic minority farmers whose educational level is limited, result in their difficult employment. The burden of raising large family is heavy, the employment problems need to be paid more attention. In job training, we should focus on the practical courses to improve their mastery and absorption of the knowledge. In training contents, they are good at traditional national food and beverage industry, traditional handicraft production, trade and logistics, etc. and make what they learned come into use. At the same time, we should also actively encourage enterprises to recruit minority workers, and carry out the corresponding policy supporting recruitment, training, etc, we should provide support and services for landless farmers into the markets to ethnic minorities, starting their own business, provide them with small loans, technical service, etc. Actively develop the ethnic restaurants, establish Hui snack street, Uygur food plaza, absorb the minority farmers into employment.

- Increase the protection of rights and interests for landless vulnerable groups in the village**

For those landless farmers whose poverty results from illness in rural areas, improve the level of medical security in social security system, to ensure that their living standards will not be further reduced after losing land. For the disabled who still have a certain ability to work, provide the assistance of employment according to the situation of disablement, boosting their confidence of surviving in society.



## **7.4.8 Approaches to promote women's participation and development in the project.**

### **●Promote women's participation in the project**

Just like other parts of the country, women in the project area have played an increasingly important role in family economic and community development, and have become a main part of livelihood in family. This is no significant difference between the different ethnic groups. Therefore, to strengthen the participation of women at all stages of the project, is an important means to ensure the project benefits.

At the stage of project design, design units should listen more about needs and suggestions of women in the project area; during the implementation of the project, to ensure that 30 % of non- technical jobs give priority to vulnerable groups, including women, as well as to ensure equal pay for men and women, to ensure compliance with labor laws about pay, personal safety and other aspects; when receive compensating money, ensure that women and men have the same right to sign for compensation.

### **●Strengthen labor skill training for women**

In project area, though the percentage of out-migration women in Uighur and Hui is lower, they can engage in handicraft at home. Moreover, the facts show that, in some families, these sources of income have become an important part in family economic income. Therefore, they should also be an important target group of skill training. When carrying out skill training, woman's demand must be taken into account.

The vast majority of women are the main undertaker of housework in project area, so their training time is often limited. Moreover, women just have a low level of education in project area, so their abilities of accepting skill training are limited. However, these factors should not become the limit for these women to accept the training about technologies and skills. The training time should consider the characteristics of the women's housework so that we can select the time at night to carry on; on the training method, instead of just reading and explaining the knowledge of science book, we should emphasize the practicability of teaching method and live demonstration on the training method.

### **●Enhance women's safety awareness training**

If some woman's safe consciousness is not strong in project area, neglecting the children's care, it will have some hidden problems in safety. Therefore, enhance the

safety awareness for women who take the main responsibility of looking after children in family can reduce the risk.

#### **7.4.9 Other comments on improving the design of the project**

(1) Project planning should avoid the waste of resources; traffic lines should have a long-term, orderly, rational and scientific planning.

After the subway operation, whether it will lead to the reduction in the passenger flow of BRT; whether the overlap of subway and BRT lines can cause traffic diversion route which will result in a waste of taxpayer resources issues ; all these issues need the government to make a scientific, orderly and long-term planning about the city's traffic. Bus, subway and BRT need to form a complementary advantages, covering a comprehensive area, to reduce the waste at the same time to maximize the advantages of public transportation.

(2)integrate and optimize bus lines, extend the ordinary buses to subsidiary lines and urban extension .

After the emerging of BRT and subway, ordinary buses as a traffic tool, will still exist as a supplementary means of transportation, because the expanding of the city needs more bus lines in the form of a short, quick and convenient traffic tools to serve the citizens in urban extensive roads.

(3) improve traffic signs and set scientific and reasonable design of traffic light

Scientifically and reasonably set the traffic lights, for those intersections in need of building crossing facilities and cannot solely rely on the intersection traffic lights to adjust, we should consider the vehicle traffic speed, because too much lights can not demonstrate the superiority of BRT.

(4) increase the green belts on both sides of the road

On the premise of meeting the requirements of project construction, we should try to save land and rationalize the arrangement of construction schedule. Clean the construction site timely after the construction, withdraw from the occupied space, and restore the original road and greening. Protect the green vegetation in adjacent zone ,such as trees.

(5) establish the crossing facilities for pedestrians

Give full consideration to the special needs of the elderly, students, disabled people and patients of crossing facilities, striving to establish a reasonable, safe and humanistic crossing facilities. We should absorb public opinions fully to do the construction of crossing facilities, lighting, drainage, non-slip facilities, and complete the hardware accessory.

(6) focus on specific needs of the elderly

As a special vulnerable groups, the elderly will have its own special requirements. According to the research, the needs of the elderly mainly are : the crossing facilities should be more safe and convenient; Set more bus seats for those old, weak, ill or disabled. The car stops sign should be striking; prepare first aid kit in the car to prevent sudden illness of the elderly. Besides, the elderly themselves also agreed that it is better not to go out in the rush hour in case of causing the burden of young people, and they also put forward some feasible Suggestions.

(7) further improve the lanes settings for disabled

Current lanes available for the handicapped are too steep and is unfavorable for them, especially in winters, when it is slippery and easy to cause accidents. The wheelchairs for the handicapped can not get into from the gate mouth, and they must get in from the iron door, but for the disabled, the design of gate is too narrow .

## **7.5 The implementation of the relevant advice after abutting with the Research Department and the Municipal Department.**

In the afternoon of Oct.15,2014, in the advice of Yaosongling(姚松龄), the security expert of the World Bank, the project office convened the experts and responsible people from our social assessment establishment department and the feasibility design department as well as other relevant departments (Urumqi Municipal Traffic Research Center, Beijing Municipal Institute, Beijing Highway Design Institute, Shanghai Kejin Consulting Company), listened to the over 70 concrete suggestions listed in the social assessment report provided by the social assessment establishment department, all units put forward their docking advice accordingly, and the followings are the 48 docked suggestions:

**Table 7-1 the docking conclusion of the suggestions between the social assessment and relevant departments**

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
1	Combine the ground transformation,the replacing of the underground pipeline, and BRT construction of Altay Road into one	The implementation of the 3 construction should be planned and coordinated unitarily by the government.
2	Rebuild the overpass or underpass before the school gate of Xinjiang University north campus in northwest road, and no parking is allowed on the pedestrain.	In the feasibility study program, consider building underpass at the Karamay Road combined with the BRT station in the 200m north of Xinjiang University, and also consider adding crossing facilities before the school gate.(preliminary plan has been taken into account)
3	Set site at the Timber Mill and remove the Auto repair shop beneath the overpass.	In the program, Set BRT station at Weixing Road and Zhongya South Road near the Timber Mill overpass, preserve the regular bus stops here for people to transfer in ordinary buses to the BRT station.(it was previously planned to set station at the overpass )
4	Expand the Zhongya South Road and changed it into dual carriageway, pay attention to the students' safety in the nearby Forestry Department branch school.	In the program, keep the single lane of Zhongya South Road, to form a micro-circulation with Altay Road, Weixing Road and Henan Road; set BRT station, pedestrain facilities and supporting Pedestrian safety control facilities at the Forestry Department branch school.(it was prviously planned not to cover Zhongya South Road)
5	Broarden Yingbin Road and add fences in the middle of the road.	The widening of Yingbin Road is involved in the program.
6	The planned road for BRT in Tianshan old town district is too narrow, and can only share roads with the social vehicle lane and cannot establish a special channel, so it can not embody the advantage of bus rapid transit, therefore, hope to be able to consider carefully whether must build BRT.	Currently the Xinhua Road in the old town part is dual with six lanes. In the program, we decide to take the inside lanes as the BRT special channel and separate from other lanes, and also provide traffic organization scheme to make use of and promote the capacity of the parallel roads, to share the traffic flow of the social

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
		vehicles.(the previous plan is consistent with the program, besides, lay colored pavement on the BRT lanes.)
7	The large people flow and traffic flow in Large and small West Gate area increases the stability maintenance pressure.	BRT is of large capacity and high efficiency, which can share the large people flow and effectively reduce the traffic flow of small vehicles.
8	The starting point of the BRT stop in Nanjiao passenger station should be as close as possible to the passenger station.	The location of the south terminal of BRT4 line –Sanlitun Bus hub will become the comprehensive transfer hub of subway 1 <sup>st</sup> line and BRT.
9	The majority of residents reflect that Yingawati road is not suitable for the construction of BRT.	Yingawati road is not of the BRT construction road.
10	Connect the BRT6 line and the other BRT line directly, so that the citizens of Miquan city can enter the city directly.	BRT6 can transfer with BRT6branch line and BRT7 respectively at Kazi Bay and Beijiao passenger station.
11	The road near Beijiao passenger station is too crowded, proposal to widen the road.	The widening of Nanhu North Road in Beijiao passenger part has been involved in the BRT7 construction.(it was previously planned to add pedestrian here.)
12	Don't change the driven route of No.906 bus during the period of the road repairing.	It can be included into the network planning research of the project.
13	Set up the crossing facilities in the intersection crossroads of the east of Kashi and the south of Mi Dong road.	The program decided to set ground pedestrian facilities combined with BRT station.(previously planned to set footbridge here. )
14	Suggest setting a traffic light respectively in the intersection of Xianghe Bay and Er Gang farmer's market.	In the program, set BRT stations here and set pedestrian facilities and signal control combined with the BRT station.
15	Suggest constructing the crossing bridge or underground passage at Bajiahu and Kazi Bay	In the program, set BRT stations here and set pedestrian facilities and signal control

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
	as early as possible.	combined with the BRT station.(it has been taken into account previously.)
16	Suggest setting up temporary station in Kazi bay during the project construction to shunt vehicles.	It will be solved in the traffic organization and design scheme during construction.
17	Suggest setting up station between cement mill station and LiaoYuan Street station.	Stations has already been set.(Ergang site)
18	Suggest setting up temporary station or traffic guidance sign in time.	It will be solved in the traffic organization and design scheme during construction.
19	Suggest making the exits and entrances of BRT linked the underpass to the slot of BRT site like the operational approach of No.1 Friendliness station.	Subsequent optimization design combined with the real situation and specific conditions.
20	Reduce the seat design for BRT in real demand.	The design of BRT vehicles should not consider space utilization, but also the capacity and comfort; with the completing of the subway and BRT system, the congestion inside will be eased.
21	Set up highway overpass or underpass at the intersection of the railway station site.	It is not in the scope of the project construction, the project office will reflect it to the relevant departments.
22	Broaden Songshan Road.	Songshan Street is not in the project construction scope.
23	The bus should be opened to traffic in Beiwei 3 <sup>rd</sup> Road.	The BRT6 branch line of the project will pass Beiwei 3 <sup>rd</sup> Road and set site here.
24	Adjust BRT6 branch line at the site of Railway Bureau .	BRT6 branch line will not pass the Railway Bureau.
25	Suggest reducing the limitation on BRT about the traffic lights in the non-trunk.	The BRT has been equipped with Signal priority control system.

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
26	Increase the green area of roads.	Implement according to the design scheme.
27	Construct BRT on the viaduct not the ground. Many citizens agree with the pattern of Xiamen, especially the owner of private cars.	The setting of BRT should be in accordance with the real condition, and it varies in different places and needs to taken many factors into consideration.
28	Extend BRT6 branch line to Bagang.	With the development of the city, there will be subsequent optimization of the BRT network.
29	There are too many stops from Changsha road to Tianjin road, while too little stops in Siping road.	The setting of stations should fully consider the needs along the lines, the distance between Changsha road and Tianjin road is 550m~650m.(it has been already optimized previously.)
30	Set more lines and buses in the crowd-intensive new communities.	It can be involved in the public transport network research of the project.
31	Suggest taking the odd-and-even rule for private car owners and make sure the smoothness of public traffic.	It can be involved in the motor vehicle development policy research.
32	Suggest removing the BRT station out of the South Railway Station Square.	It is not in the research scope of the project, and the rationality f this suggestion needs discussing.
33	Suggest widening the in and out platform of the South Railway Station.	It is not in the research scope of the project, and the project office will reflect it to the relevant departments.
34	Suggest construct Multistory parking lot at the South Railway Station Square.	It is not in the research scope of the project, and the project office will reflect it to the relevant departments.
35	Suggest setting stations at the Yinchuan Road.	It is not in the research scope of the project, and the project office will reflect

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
		it to the relevant departments.
36	Suggest setting traffic lights at the intersection of Tianshan Garden.	It is not in the research scope of the project, and the project office will reflect it to the relevant departments.
37	Previously plan the east-west line of the city and increase the investment.	The implementation of the BRT6 branch line(east-west direction) will integrate with the operation time of the high-speed railway station.
38	The economic interests of the business shops and tenants along the street had been affected by government's infrastructure construction. Hope the government can offer compensation to them. And if shops need to be rebuilt in other places, the government should offer some help and support.	It has been considered in the social influence evaluation report and immigrants relocation plan of the project.
39	Quicken the reforming and construction of the sub-branch line, because of the limited resources of the north-south trunk road, we should improve the traffic of the parallel roads and guarantee the needs of the small vehicle owners.	The traffic improvement of the affected roads has been taken into consideration by the program.
40	The transforming advice on the current traffic condition in Mingdong District. Midong District was Miquan city before the incorporation, whose traffic facilities are not complete, with old and out-dated traffic facilities, signs, traffic lights, etc. compared with those of Urumqi.	The project will perfect the traffic facilities along the BRT lines.
41	Set elevator crossing facilities at the elderly and the handicapped people intensive places like hospitals.	This will be further optimized and planned subsequently.
42	the platform should set the intelligent display of the parking information of line-sharing stations.	The ITS station design will be further optimized subsequently.
43	Consider opening wifi on the BRT vehicles.	It will be further discussed.
44	the Bus TV should display the dynamic name of the station, as well as the main spot near the site.	It will be optimized subsequently.



sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
45	Suggest separating the green belt and the special line with rock road when constructing the special line for BRT.	It will be considered subsequently.
46	Consider improving the top design of the BRT platform.	This will avoid the insufficient design of the current BRT station and further optimize the design of the station.
47	Antistatic board should be strong and durable enough to prevent the safety problems and the tripping between devices.	The quality will be guaranteed during the subsequent construction of the BRT station.
48	Consider applying for solar energy and install solar panels, for the use of solar energy is not only environmentally friendly but energy-saving.	Very good advice, and will be considered subsequently.
49	For the conditional sections, we can consider opening both of the ends to improve the efficiency in and out of the station to avoid the crowd congestion.	It should be designed in accordance with the real situation.
50	Different lines of vehicles should be painted in different colors, for color can leave people a deeper impression than the numbers.	It will be optimized subsequently, and also consider to add the line signs at the sides of vehicle.
51	Suggest using a resin material to make BRT separating fences.	The choosing of the fence material will comprehensively take its performance, visual effects and cost, etc. into account.
52	Suggest adding the brand that have the electronic instructions of BRT transferring. Every car and every platform should have line identification, and it's better to use Chinese, Uighur, and English for identification.	It will be optimized subsequently.
53	Suggest learning from common bus, get on at the front door and off at the back door to avoid congestion in the door accessories.	Getting on at the front door and off at the back door is good to keep the order inside the BRT, while getting up and down simultaneously can improve the efficiency of the the passengers' up and down as well as the space utility of BRT in terms of large capacity and quick operations; suggest helping the citizens form the good habit of getting off firstly and off subsequently.
54	Hope to add a store room for the working	It wil be optimized subsequently.

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
	staff to the station design when constructioning BRT in the future.	
55	Suggest increaseng the transportation subsidies and lunch subsidiesaccording to the real conditions.	This should be discussed by the relevant departments.
56	Determine our city’s development strategy of minibus and parking combining with “Urumqi transport development white paper” as soon as possible.	It can be included into the study of the parking management and strategy of the project.
57	Establish strict supporting parking completion acceptance mechanism.	It can be included into the study of the parking management and strategy of the project.
58	Through differentiating the parking fee and management to increase the present charge standard properly and to adjust the parking demand and transport demand.	It can be included into the study of the parking management and strategy of the project.
59	Suggest strengthening the parking management in the road at daylight and setting schemes like forbidding parking, or allowing short-term and long-term parking	It can be included into the study of the parking management and strategy of the project.
60	As to the increasingly prominent old residential parking contradictions, it’s suggested to implement the “open all night inside the road parking” scheme to relieve people’s parking problem.	It can be included into the study of the parking management and strategy of the project.
61	Suggest installing probes along the bus-only lines to strengthen supervision.	The program has designed the illegal capture system along the BRT lines.
62	Inform the affected people before the project construction to have the residents and businessmen make preparations in advance.	It has been taken into the social assessment and environment evaluation work of the project.

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
63	During the construction, pay attention to the residents' travel safety, especially the children's safety on their way to school.	It has been considered in the social assessment work, and also strengthen the traffic organization design during the construction to ensure the traffic safety.
64	Many people have doubt in the construction quality of the project and hope to participate in the construction.	The constructors must be professional workers, and the appropriate form of the public's participation should be considered in their following-up joining activities.
65	Project planning should avoid the waste of resources.	The program has fully considered the utilization of the old facilities.
66	Integrate and optimize the bus lines, extend the ordinary buses to the auxiliary roads and the urban epitaxial areas.	It can be included into the study of the public transportation network of the project.
67	Improve the design of the traffic signs, to design the traffic lights scientifically and reasonably.	The program has improved the traffic signs and facilities along the BRT line.
68	Pay attention to the special needs of the elderly, and increase the seats for the vulnerable group; the station name inside the vehicle should be striking and in big letters; prepare first aid kits inside the vehicle in case of the sudden pathogenesis of the elderly.	It will be optimized subsequently.
69	For those drivers who need job-transfer training or employment training, the government and enterprises should give corresponding support, and pay more attention to the settlement of female employees.	It has been considered in the social assessment report of the project.

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
70	The land acquisition and compensation standard should be open and transparent, the removal should be informed in advance, the project office should negotiate the related affairs such as immigrant removal, compensation and settlement, move transition, and employment.	It has been considered in the social assessment report and the migrants' relocation of the project.
71	In terms of safety, more probes should be installed.	The along electronic law enforcement system has been involved in the program.
72	Perfect the special lanes for the handicapped.  The ramps available for the handicapped are sometimes too steep, which is detrimental for them to go out. It's impossible for the wheelchairs of the handicapped to enter in from the gate, so they have no choice but to enter from the iron gate on the side, but the door is a little bit narrow for their wheelchairs.	This will be further optimized and planned subsequently.
73	Start reforming the operation management system of the public transportation company in Midong District, and involve the public traffic system of Midong District into the traffic system of Urumqi, to enhance the unitary coordination and management of the public traffic enterprises.	It is in the charge of the government administration. And the government has already planned for it and will be complemented when permitted.
74	Involve the financing and investment of the publictraffic system construction in Midong District into the unitary management of the government finance of Urumqi.	It is in the charge of the government administration.
75	The construction should be carried out in subsection and time division. It depends on	It has been taken into the social assessment and environment evaluation

sequence	The detailed advice from the citizens gathered by the social assessment research	feasibility
	the road specific situation to decide whether the road is semi-closed or totally closed during the construction time.	work of the project. The concrete construction scheme and the traffic organization design during the construction will be made before construction.
76	Set up warning signs. According to the condition of the road passage, it should include different kinds of cautions like reminding people of safety and reminding drivers to slow down and no entry. The warning signs should be written in both Uygur and Chinese.	It has been taken into the social assessment and environment evaluation work of the project. The concrete construction scheme and the traffic organization design during the construction will be made before construction.
77	After finishing the construction and recovering of the road, the ancillary facilities of traffic office must be repaired which include marks, lines and so on. The project should have budget in this aspect and be carried out by the unit appointed by the traffic office.	It will be considered in the traffic organization design during the construction.
78	During the construction ,the contractor should educate the builders on the national policy and customs and respect minority customs.	Taken.
79	Further improve the level of business and culture quality of bus service.	This should be discussed by the relevant departments.



**Picture 7-1 The advice butting meeting of the social assessment of the project** (the participating units are: Urumqi Transportation Research Center, Beijing Municipal Court, Beijing Highway Design Institute and Shanghai KeJin Consulting Company)