

22. Improvement of Azizbekov Intersection

(1) Objectives

The objectives of improving the intersection are as follows.

- a) To mitigate the traffic congestion at this intersection and secure the smooth traffic flow on the main arterial roads, the Moskva Ave. and Mikayil Aliyev Ave.
- b) To make more convenient the transfer from city bus to subway, from city bus to railroad, from city bus to city bus, to strengthen the function as traffic junction, and to avoid excessive concentration by adequate arrangement of bus stops and bus terminals.
- c) To improve the terminal at the station square in order to improve the safety and convenience for pedestrians, and secure a sufficient area for the terminal.



Figure 22.1 Location Map

(2) Improvement Plan

1) Improvement of Intersection

It is proposed to extend Mikayil Aliyev in the straight direction and change the intersection with Moskva Ave. into a four-branch crossing to correct the crank-shaped intersection.

In addition, as the traffic capacity at the intersection is not enough in the level crossing, it is proposed to change it to grade separation.

2) Terminal Improvement

It is proposed to improve the station square and install the bus bay outside of the intersection to accommodate minibuses and buses stopping at Moskva Ave.

Extension of part of the underpass for pedestrians transferring from subway station to use buses was also proposed.

Redevelopment of the eastern terminal of the station in order to improve the convenience of accessibility between cars and pedestrians in the eastern residential area and railway and subway stations was proposed for the distribution of functions as a transport node in the west side. The total project cost for intersection and terminal improvement was estimated at 12 mil. USD.

(3) Project Evaluation

1) Economic Evaluation

This project is barely feasible due to the relatively high cost and high efficiency to the traffic.

EIRR	NPV (million USD)	B/C
12%	0.08	1.01

2) Environmental Impact Assessment

As a result of examination, it is considered that Azizbekov improvement does not have a significant impact on the environment with adoption of countermeasures. Though expropriation of idle factory land owned by the state will be necessary, it is assumed to be done only after consultation. It is expected that the project will contribute to improve traffic conditions around the Azizbekov Square, and the use of public transportation and the pedestrian environment will be also improved.

(4) Conclusion

This project is expected to have various effects, and to facilitate the development of this area as an entrance gate from Bina Airport. This project should be implemented after discussion with and consensus of residents and landowners are made, because it will give an opportunity to rearrange land use including idle factories.

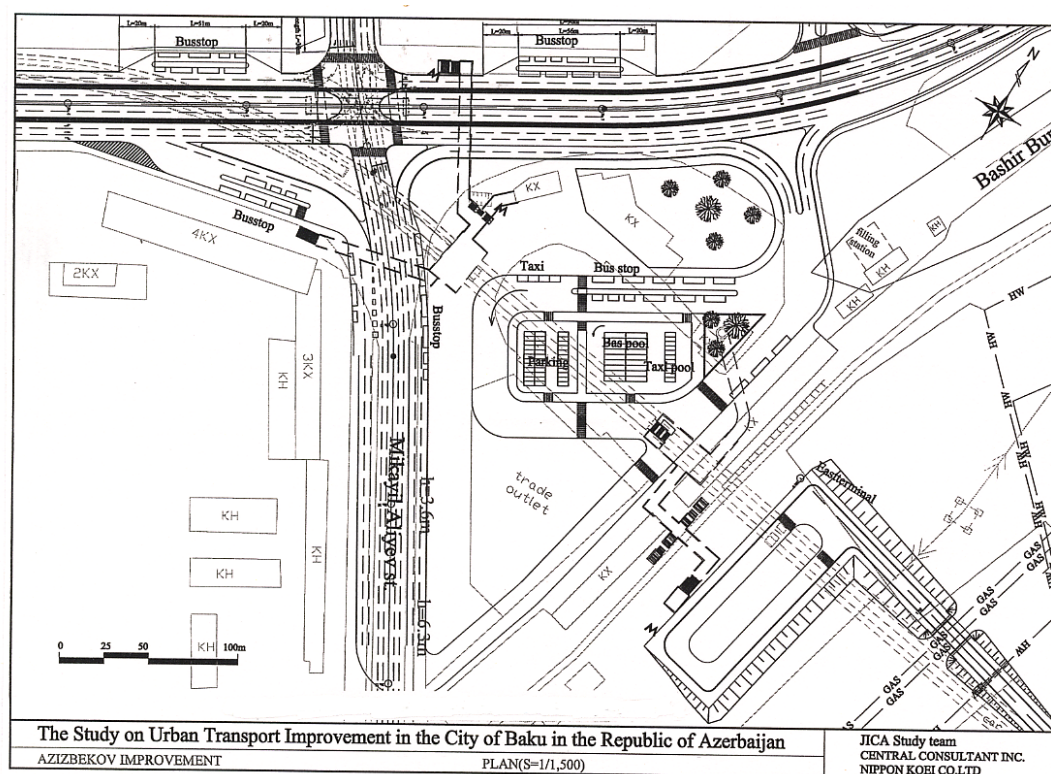


Figure 22.2 Improvement Plan of Azizbekov Intersection

VI. Conclusion and Recommendation

23. Conclusion and Recommendation

(1) Implementation of Urban Transport Improvement Plan

This Plan was proposed to improve the mobility of person trips and freight traffic in a sustainable manner, and to contribute to the improvement of urban environment.

This plan includes road sector improvement plan, public transport improvement plan, and action plan for the realization. Road plan proposed four ring roads, six radial roads and Silk Road Corridor road. Traffic system management and traffic demand management measures are also proposed in the Plan. These plans were proposed as a part of the road sector improvement plan. In the public transport plan, the completion of suspended subway construction, and the extension of subway line eastwards and southwestwards were proposed.

The total amount of the project costs reaches to 1,100mil.USD. However, the Economic Rate of Return (EIRR) of the Plan was estimated at 20%. The Plan is well recommendable from the economic viewpoint.

It is strongly recommended that the Urban Transport Improvement Plan be used as a guideline for realization in the city where appropriate mobility is achieved in a sustainable manner and for the implementation of the projects in the transport sector.

(2) Immediate Commencement of Priority Projects

- Large bus introduction

This project is to replace minibuses with large buses on congested routes. Introduction of large buses for selected two routes in Phase I has a high EIRR of 19.1 %. With 5% operation cost as a subsidy the Financial Internal Rate of Return (FIRR) will be secured. In addition, rearrangement of minibus routes is also proposed. In consideration of the social importance and role of pilot project, this project shall be promptly implemented by the public sector on condition of utilizing grant aid or favorable loan. Operation/management and maintenance of large buses are significant for the project and the Department of Transport, Baku Municipality is regarded to have sufficient ability in those.

- Tram rehabilitation

This project aims to renovate existing trams as one of main public transport modes by rehabilitation, as observed in western European cities. In distant future introduction of new type trams, more rapid and comfortable, was proposed.

This project is economically feasible with EIRR of 17%. However, the FIRR is not high.

Without any rehabilitation work, dilapidation of tram infrastructure and cars will proceed beyond the restorable level, resulting in the further decrease in number of passengers by tram in near future. Rehabilitation of existing tram routes and renewal of rolling stocks shall be immediately commenced.

- Bottleneck improvement

Bottleneck improvement project is a priority project to solve existing and near future traffic congestion. In total 5 points and sections were selected.

The estimated EIRRs were relatively high varying from 12% to 116%. This project shall be immediately commenced.

- Central Traffic Control system installment

This project is proposed to improve the fluidity of traffic in the central urban area.

The EIRR was estimated at 11%. Immediate effects of expansion of road capacity, shortening of waiting time at intersection, and ease of traffic congestion together with environmental effect are expected by this project. Therefore implementation in a short time is recommended.

- **Improvement of 20 January**

Improvement of 20 January and Azizbekov intersection was proposed as a packaged priority project to improve the capacity of the intersection and to rearrange the public transport terminal functions for convenient transfers and for mobility improvement.

Improvement plan proposed a crossing at grade to reduce intersecting traffic and to encourage the straight traffic.

The EIRR was estimated at 20%. This project shall be immediately commenced for the ease of traffic congestion and strengthening of terminal function.

- **Improvement of Azizbekov intersection**

This area is expected to form an urban sub-center in the future. The intersection was also proposed to have the shape for reduction of the intersecting traffic and encouraging the straight traffic. Grade separation for the future traffic demand and rearrangement of terminal function were proposed.

The EIRR was estimated at 12%. This project shall be immediately commenced for the ease of traffic congestion and strengthening of terminal function.

(3) Fund Raising

The governmental budgetary frame for transport sector in the Planning Area was rather limited in the past. In this regard, fuel tax, vehicle weight tax, and parking fees from road users deserve reconsideration. The legal frame for the absorption of indirect benefits from the investment in transport sector should be devised. Appropriate beneficiary-pay principle and subsidy policy should be pursued for the fund raising for each type of transport service.

For the implementation of urgent priority projects, the utilization of the fund resources by bilateral or international ODA organizations with favorable condition is desirable.

(4) Institutional Reform

The institutional frame for the urban transport in Baku is still in transition. The role of public sector should be flexibly considered taking account of the development stage of the economy. Coordinating Committee with participants from each organization involved in the urban transport system will be necessary. This Committee is expected to play the role of opinion exchange and adjustment on urban transport policies, planning and operation.

As cooperation work by the people is indispensable for such institutional reform, the announcement of the information on the transport policy, projects shall be continually released. The opportunity for auditing for the transport policy and project etc. shall be provided.

(5) Issues to be Solved in Future

Feasibility study and/or detailed design corresponding to the scale and size, and characteristics of the project are required for the implementation and fund raising of projects other than priority projects in the Plan.

Though the Master Plan is proposed as a guideline for long term, it also shall be revised in accordance with changes in socio-economic conditions.

Urban transport plan should function in due course together with urban land use planning to realize the desirable state of Baku in future. Legal measures for restriction and inducement of urban land use are necessary. Further it is desirable to arrange the legal and institutional measures to accommodate the road improvement and building activities in the same project.