Environmental Impact Assessment
on
Xiwang Transit Center Reconstruction Project
of
Shijizhuang Municipal Traffic Project

(Simplified Edition)

Construction Unit: Shijiazhuang Municipal Traffic Project Office
Assessment Unit: Hebei University of Science and Technology
1. Origin of Project

Xiwang Transit Center which is established in 1986 locates at No. 849 Zhongshan West Road, now it is used by No.3 Public Transport Company. It undertakes the transportation of western residents, students, army and academy, and the traffic relay with Xiwang long-distance passenger transport station and Shangzhuang united college, the main functions are parking station, original station, dispatching management, vehicles’ repair and etc. In recent years, with the citizen’s need of outgoing, the public transport of provincial capital developeds quickly, vehicles and personnel increases every year, and public transport intelligent altitude system is implemented, the parking area and the repair area which were constructed in 1980s have not been adequate, the design and overall arrangement can not comply with modern requirements, furthermore most of the existing constructions are disrepair for many years, the structure is aging, they are in the urgent need of alteration.

The reconstruction project of Xiwang transit center rebuilds the existing original station into a public transport transit center with comprehensive function of dispatching management, waiting, passengers’ service, parking, repair, work management and etc. The implementation of this project is an important content of Shijiazhuang urban public traffic’s improvement which is involved in the public traffic subentry of Urban Transport Project of Shijiazhuang loaning from World Bank. The construction of the item has great significance to the implementation of urban traffic priority and the improvement of urban traffic environment.

2. Main Construction Content and Scale of the Project

This project is the general reconstruction of the parking area on the basis of original Xiwang transit center, it removes all the original ground buildings except for the gas station (320m²), replans the station, and it is proposed to build new multi-functional comprehensive buildings, three waiting shelters, repair workshop, parts of the road surface and pipeline of station area, electric power and fire fighting, and other intelligent altitude system. The construction land area of project base is 9457.5m², among which the hardening area is 5277.5m², general building land area is 760 m² (including waiting shelter), the total investment is 9 million yuan, among which investment for environmental protection is 72000yuan, accounting for 0.8% of total investment.
3. Assessment Standard

The Assessment Standards adopted China’s domestic relevant Environmental Quality Standards and the Pollutants Discharge Standards. The selected standard has already been confirmed by Shijiazhuang Municipal Environmental Protection Bureau.


4.1 Impact on Water and Mitigation Measures

The main sources of outer draining sewage of Xiwang public transport transit center are: sewage for washing land in repair workshop and living sewage of general building. Main pollutants in sewage are COD, SS, NH₃-N, petroleum and etc. The ground-washing sewage of repair workshop which is treated in separation tank and the living sewage which is treated in septic tank will be drained into municipal sewage pipeline, after joining with other sewage, they will be get further treatment in Qiaoxi Sewage Treatment Plant, then enter the Minxin River at last, thus it has very little impact on water environment.

4.2 Impact on Air Environment and Mitigation Measures

This project mainly aims to reconstruct the original Xiwang public transport hinge station, which is to construct the existing original station into a public transport transit center with dispatching management, waiting, passenger’s service, parking, maintaining, office management and other comprehensive functions. The repair workshop will not be painted, and then the main exhaust gas is tail gas from engine of automobiles, which will have no impact on air of ambient environment. The project will demolish the existing 0.7t/h hot water boiler, which can decrease pollutants emission, with SO₂ 0.8t/a, and smoke dust 4.3t/a, thus the ambient environment will be improved in a certain degree.

4.3 Noise Impact on Environment

The main noise sources are machine tool noise from repair workshop and noise of testing engine, their noise value will reach to 65～80dB(A). The project will adopt muffler used in vehicles, inside insulation and limiting testing time to control noise impact on ambient environment. From the forecasting result, the forecast value range of plant boundary of daytime project is 52.3～58.4 dB(A), the resident building of Xiwang Village is 54.1 dB(A), the dormitory of Military Academy is 53.5 dB(A); the forecast value range of plant boundary of night project is 43.2～47.2dB(A), the forecast value of resident building of Xiwang Village is 43.5 dB(A), the dormitory of Military Academy is 43.7 dB(A).
dB(A), all the plant boundary can satisfy the requirements of Class I, Class IV relevant standards in *Standard of Noise at Boundary of Industrial Enterprises* (GB12348-90).

### 4.4 Impact of Solid Waste

The solid waste of this project is mainly from living garbage of personnel, and little oiliness cotton yarn of repair workshop. Through analogy investigation and information provided by construction unit, the living garbage amount is 15 t/a, and the oiliness cotton yarn amount is 0.20 t/a. The site will set up fixed dustbin to collect living garbage, which will be reclaimed by environment protection department of Qiaoxi District; the oiliness cotton yarn will be reclaimed by professional department after collection. All the solid waste during the project running period will be disposed appropriately, and will not arouse second pollution to the environment.

### 4.5 Analysis of Social Benefit Impact during Running Period

(1) According to the “four plus one group” plan of Shijiazhuang City, when the city is developing to west, southwest, and northwest, the Xiwang Transit Center will be a sub-center of public traffic to radiate to wide areas, which will solve the problems of developing around mountain areas and enter downtown for the residence in around mountain areas.

(2) It will increase parking area in the transit center, which improved the existing crowd situation. The rebuilt parking area capacity will reach to 113 buses from the former 80 buses.

(3) The traffic organization ability of the station area is promoted, and the safety hidden trouble is decreased. The original constructions are arranged unreasonably, which blocked parking and vehicle collection, after reconstruction, the land is leveled up and the parking and departure of vehicles will be more reasonably. It will set up three waiting islands for passengers and standardize the departure sequence.

(4) Improving the multi-function service level of the transit center. After the completion: firstly, it will provide convenience for passengers to change and waiting buses; secondly, it can provide service information through service hall and system, IC card selling and service hotline offer more convenient service to the passengers; thirdly, it can standardize departure sequence, which will have advantage for passengers to wait in order, and provide safety guarantee to passengers; fourthly, it can make production and management orderly through intelligent scheduling system, which will improve the general service level of provincial capital public transport at the same time.
(5) Reducing the hidden trouble of firefighting, and electricity usage. The firefighting establishment in the station are very simple, after reconstruction, the station will increase firefighting establishment in accordance with the new firefighting standard, which will reduce the hidden trouble. The transformer also reaches to its age limit, which is very easy to arouse a fire. It is quite necessary for a parking lot with more than 100 vehicles capacity to change transformer, and increase firefighting establishment.

5. Policy for safety guarantee

According to relevant regulations of World Bank and relevant articles on environment documents of World Bank, Shijiazhuang Traffic Project Office and evaluation unit has checked and confirmed the policy for safety ensure. See results on Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Checking content</th>
<th>Confirming results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Evaluation on environment impact</td>
<td>Relevant (environment impact has been approved by Shijiazhuang Environment Protection Bureau).</td>
</tr>
<tr>
<td>2</td>
<td>Natural habitat</td>
<td>All the areas involved in the project are located at city zone, and not refer to natural habitat.</td>
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<tr>
<td>3</td>
<td>Moving work</td>
<td>No transference work is involved in the project.</td>
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<tr>
<td>4</td>
<td>Cultural relic and heritage</td>
<td>After investigation, no cultural relic is involved in this project.</td>
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<tr>
<td>5</td>
<td>Disputing area</td>
<td>There is no international disputing area.</td>
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<td>6</td>
<td>Safety of dam</td>
<td>There is no dam in the range of shijiazhuang Municipal traffic Project.</td>
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<tr>
<td>7</td>
<td>International water area</td>
<td>There is no international water area.</td>
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<tr>
<td>8</td>
<td>Forest</td>
<td>All the areas involved in the project is located at city zone, and there is no natural forest and manual forest.</td>
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<td>9</td>
<td>Pesticide management</td>
<td>This project will not involve pesticide and herbicide during the construction and operation period.</td>
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</tbody>
</table>

6. Conclusion on Feasibility of the Project

The reconstruction project of Xiwang Transit Center of Shijiazhuang municipal traffic project using World Bank loan conforms to the national industry policy. It adopts perfect environmental protection and treatment measures to ensure that all the pollutants emission are in accordance with standards. The implement of the project has little effect on ambient environment. Besides that, this project will utilize the existing site of No. 3 Transit Company, and will not levy new land, which can make the existing land resource arranged reasonably. Therefore, From the point view of environmental protection, the construction of this item is feasible.