



Social Impact Assessment (SIA)

Reconstruction of the P-80 motor road
Sloboda-Papernya km 0.000 – km 14.770

Prepared for the European Bank for
Reconstruction and Development

August 2017

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ERM Eurasia Limited confirms that this Report has been prepared with all reasonable skill, care and diligence and in conformity with the professional standards as may be expected from a competent and qualified consultant acting as Environmental and Social Lender's Consultant having experience in providing services for projects with similar scope of work, complexity, issues and scales.

This Report has been prepared in accordance with the terms of the Contract concluded with the *EBRD* and the generally accepted environmental and social consulting practices and for intended purposes stated in the Contract. The conclusions and recommendations made in this Report are based upon information obtained directly by *ERM Eurasia Limited*, as well as information provided by third parties, which we believe to be accurate.

This Report has been prepared for the *EBRD* and we accept no responsibility for third parties whatsoever who may use all or portions of the information contained in this Report.

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1.1

GENERAL INFORMATION

This document was prepared in line with the Contract No C36543 dated 21 June 2017 between the European Bank for Reconstruction and Development (hereinafter “EBRD” or “the Bank”) and ERM Eurasia Limited (hereinafter “ERM” or “the Consultant”). This document is the Social Impact Assessment Report (SIA) for the proposed reconstruction of the P-80 motorway Sloboda - Papernya km 0.000 – km 14.770, Minsk Region, Republic of Belarus (hereinafter “the Project” or “the P-80 motorway”).

The P-80 motorway is a part of the 2nd Ring Road encircling Minsk. The P-80 motorway is republican level facility, connecting the Belarus capital Minsk with the towns and cities in the capital region. The road is exposed to intensive intercity passenger and cargo traffic.

After the reconstruction of the P-80 section, the S2nd Ring Road encircling Minsk in its entire length (160 km) will have Category 1 parameters¹.

As part of the Project, a road’s section stretching for almost 15 km (the section of the P-80 road to be reconstructed) will be expanded from two to four lanes. Following the reconstruction, the road will continue to be used free of charge for motorists.

The Project is currently at the investment feasibility stage.

The customer for the Project is the Republican Unitary Enterprise (RUE) MinskAvtodor-Centre (hereinafter “the Customer” or “the Client”), which represents the state of Belarus. Engineering documentation is being developed by the State Enterprise (SE) Belgiprodor (hereinafter “the Designer”).

Key participants of the Project are listed in *Table 1.1-1*.

EBRD is contemplating financing of the Project. In accordance with the Bank’s categorisation, the Project is given Category A. As per EBRD’s Environmental and Social Policy (May 2014), the Project requires a comprehensive Environmental and Social Impact Assessment (ESIA) and thorough public disclosure in line with the Banks guidance documents.

Table 1.1-1 *Key participants of the Project and their roles*

Role	Participant
Customer (Client)	<ul style="list-style-type: none"> The Belarus Ministry of Transport and Utilities RUE MinskAvtodor-Centre
Designer	<ul style="list-style-type: none"> SE Belgiprodor

¹ Practice Code TKP TKП 45-3.03-19-2006. Motor roads. Design standards.

Role	Participant
Local executive bodies	<ul style="list-style-type: none"> • Smolevichi district executive committee • Minsk district executive committee
Lender	EBRD
Lender's consultant	ERM

The Designer has performed the Environmental Impact Assessment in compliance the RB legal requirements. According to Gap Analysis performed by ERM in July 2017, environmental impact assessment is mostly compliant with EBRD requirements, considering the early stage of the Project development. At the same time national RB requirement do not envisage Social Impact Assessment.

To fulfill this EBRD requirement ERM has developed current Social Impact Assessment report.

1.2 SOURCE OF INFORMATION

The Consultant used various sources in preparation of this Report.

Firstly, a documentation package related to the Project was provided to the Consultant by the Bank. Then, on 29-30 June 2017, an ERM team held a number of meetings with participants of the Project (see *Section 1.1*) and physically inspected the section of the P-80 road to be reconstructed. During the meetings, representatives of the Client and the Designer, jointly with the ERM team, disclosed project-related information with representatives of the Smolevichi and Minsk district executive committees.

The information obtained during the meetings and the site visit was also used in preparation of this Report.

The Consultant also filed additional requests for information to the participants of the Project in order to obtain a better understanding of the Project's current status and the baseline environmental and socio-economic situation within the Project Area. The requests were satisfied, and the responses were also used in preparation hereof.

List of the documents used as sources of information is provided in *Annex 1*.

2.1

SUBSTANTIATION OF PROJECT IMPLEMENTATION

The P-80 motorway was built in 1934 and reconstructed in 1975. The section of 0.000-14.770 km was last renovated in 1987-88.

Currently, the P-80 road section to be reconstructed is a Category 2 facility; it has two traffic lanes, an asphalt concrete topping, and a 7.5 m wide carriageway.

The road section crosses the Smolevichi and Minsk administrative districts of the Minsk region.

In particular, the road crosses the village of Okolitsa and also runs near the following villages and towns:

- Ostroshitsky Gorodok;
- Belye Luzhi;
- Okolitsa (the road crosses the settlement)
- Raubichi;
- Baguta (including the Tavalga private housing cooperative);
- Sosnovaya; and

The need for the construction of the 2nd Ring Motor Road is dictated by the following factors:

- The existing Minsk Ring Motor Road (MRMR) has almost reached its traffic capacity limit. As of now, the vehicle density at its certain sections is as much as 100,000 vehicles per day and it will increase later on with consideration for the outlook for city development;
- At present the urban area of the city of Minsk is being intensively expanded and it occupies the territory beyond the existing MRMR. MRMR location within the urban area adversely impacts both the city environment and comfort of dwelling in adjacent residential areas. Noise and air pollution levels together with other harmful factors exceed standard values in many route sections.

As soon as the Minsk Urban Development Plan is implemented by 2030 and the existing MRMR is taken up by the urban area, the 2nd Ring Motor Road will be the main transport corridor for transit traffic to bypass the city and for transport links with the developing suburban area with satellite towns such as industrial towns (Dzerzhinsk, Zhodino, and Fanipol), agro-industrial towns (Smolevichi, Stolbtsy, Uzda, and Rudensk), and tourist & recreational towns (Zaslavl and Logoyisk).

The Project envisages expanding around 15 km of the existing two-lane road to four lanes and increasing the road class from Category 2 to Category 1¹ (Figure 2.2-1).

The reconstruction will be done in phases:

- Stage 1: reconstruction of the 0.000-7.600 km section;
- Stage 2: reconstruction of the 7.600-14.770 km section.

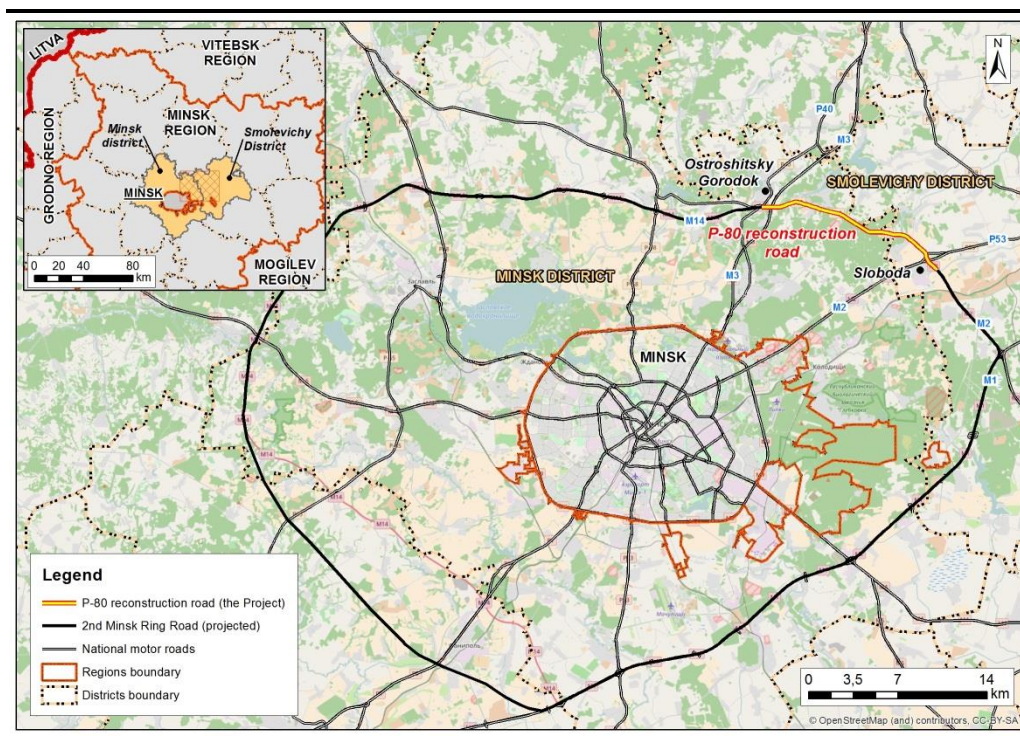


Figure 2.2-1 Layout of the P-80 road's section 0.000 – 14.770 km to be reconstructed

The Project's key technical data is presented in Table 2.2-1 below.

Table 2.2-1 Key technical and financial data of the Project

Parameter	Stage 1 0.000-7.600 km section	Stage 2 7.600-14.770 km section	Total
Road category	1-v		
Length, km	8.46	7.17	15.63
Number of traffic lanes	4		
Carriageway width, m	2×7.0		
Shoulder width, m	2×3.0		
Roadbed width, m	22.7		
Road topping	cement concrete		
Grade-separated crossings with other	2	2	4

Parameter	Stage 1 0.000-7.600 km section	Stage 2 7.600-14.770 km section	Total
motorways			
At-grade crossings and junctions	3	6	9
Number of cross-overs	2	2	4
Number of subways	4	4	8
Number of crossings for hoofed animals	1	—	1
Total length of noise shields	2730.0 m	4210.0 m	6940.0 m
Number of land plots to be withdrawn	—	1	1

2.2.1 *Road layout*

The starting point of the road section to be reconstructed (PK 0+00) is also the starting point of the P-80 road, where the latter borders the four-lane M-2 motorway connecting Minsk with the Minsk-2 National Airport.

The end point of the road section to be reconstructed (PK 146+22.51) corresponds with the 14.770 km mark of the P-80 road. The existing at-grade traffic circle between the P-80 road and the R-40 Borovlyany-Logoysk road will not be reconstructed.

The road section to be reconstructed is fully aligned with the existing road.

2.2.2 *Roadbed and drainage solutions*

During the reconstruction, the existing roadbed will be used to the highest possible degree.

The roadbed is designed in line with the national road design requirements¹ taking into account the road category, type of pavement, natural conditions of the Project area, stability of embankment slopes, road dependency on snow conditions and traffic safety.

Following the reconstruction, the roadbed will be 22.7 m wide.

- Carriageway width – 4x3,5 m;
- Shoulder width – 3,0 m, including parking lanes 2,5 m;
- Divisor width – 4,3 m.

Total earthworks are estimated at 1,880,658 m³, including:

- 887,955 m³ for Stage 1; and
- 992,703 m³ for Stage 2.

¹ Practice Code TKP TKPI 45-3.03-19-2006. Motor roads. Design standards.

At waterlogged areas, peat will be removed completely, to the depth of the mineral bottom, and back-filled with sandy soil.

Three different types of roadbed and drainage solutions will be designed along the road section subject to reconstruction, depending on specific features of the route (Table 2.2-2).

Table 2.2-2 *Roadbed profile and surface drainage methods*

Route features	Profile / drainage
Low embankments	Ditched profile. Slopes and bottom will be reinforced by planting of grass and topsoiling. The bottom of the ditches where slopes exceed 10‰ will be enforced with gravel or concrete.
While passing through cut-outs.	Ditchless profile. Drainage under the sand bed and retaining walls.
High (over 3 m) embankments, inverted curves, bus stops, approaches to waterway bridges, exits from interchanges.	Water chutes and runoff inlets.

The Project also provides for construction of water treatment facilities near the Domelka River and the village of Okolitsa.

2.2.3 *Road topping*

The road topping was designed in line with national requirements.

The traffic lanes along the reconstructed section will have a cement concrete topping, while the divisor and the shoulders will have an asphalt concrete topping.

2.2.4 *Interchanges and junctions*

The Project provides for reconstruction of two existing interchanges and construction of four new interchanges.

Where P-80 crosses the M-2 and M-3 roads, the existing cloverleaf intersection will keep its configuration, although two acceleration lanes under the overpasses will be added (Figure 2.2-2).

Also, four new interchanges will be built in the areas of entrances to the following objects: (Figure 2.2-3 and Figure 2.2-4):

- To the village of Baguta;
 - To the military base (The 7.71 km mark);
 - To the residential areas of villages of Okolitsa, Raubichi and Gubichi;
- and

- To the Raubichi sports Centre.

And nine at-grade junctions with acceleration-deceleration lanes will be constructed.

2.2.5

Artificial facilities

Culverts will be installed to divert water from the roadbed and enable through flow of small waterways. The main road will have 23 culverts 1.2 m in diameter, and interchanges will have 34 culverts 1.0 m in diameter.

The list of bridges, overpasses and crossings to be constructed and reconstruction as part of the Project is presented in Table 2.2-3.

Table 2.2-3 *Bridge, overpasses and crossings envisaged by the Project*

No	Facility	Activity	Description
1	Overpass at interchange with M-2	Reconstruction	49.77 m long skew girder concrete overpass
2	Overpass at interchange with M-2	Reconstruction	57.8 m long skew girder concrete overpass
3	Overpass near the village of Baguta	Construction	21.76 m long simple-span girder concrete overpass
4	Crossing for hoofed animals (5.9 km mark)	Construction	An underground crossing made of fabricated corrugated sheet metal
5	Overpass at 7.74 km mark	Construction	21.76 m long simple-span girder concrete overpass
6	Overpass near the village of Okolitsa	Construction	21.76 m long simple-span girder concrete overpass
7	Overpass near the Raubichi sports Centre	Construction	21.76 m long simple-span girder concrete overpass
8	Grade-separated crossing near the village of Belye Luzhi	Construction	Pedestrian underpass made of fabricated concrete blocks (Figure 2.2-5)
9	Grade-separated crossing near the village of Sosnovaya (2.3 km mark)	Construction	Pedestrian underpass made of fabricated concrete blocks
10	Grade-separated crossing near the village of Baguta (3.7 km mark)	Construction	Pedestrian underpass made of fabricated concrete blocks
11	Grade-separated crossing near the village of Okolitsa (10.6 km mark)	Construction	Pedestrian underpass made of fabricated concrete blocks
12	Grade-separated crossing near the village of Raubichi sports Centre (11.8 km mark)	Construction	Pedestrian underpass made of fabricated concrete blocks
13	Grade-separated crossing near the village of Ostroshitsky Gorodok (14.3 km mark)	Construction	Pedestrian underpass made of fabricated concrete blocks



Figure 2.2-2 Schematics of intersections reconstruction (A) at M-2 motor road crossing and (B) at M-3 motor road crossing



Figure 2.2-3 Schematics of new intersections (A) near the village of Baguta, (B) at 7.71 km mark (military base)

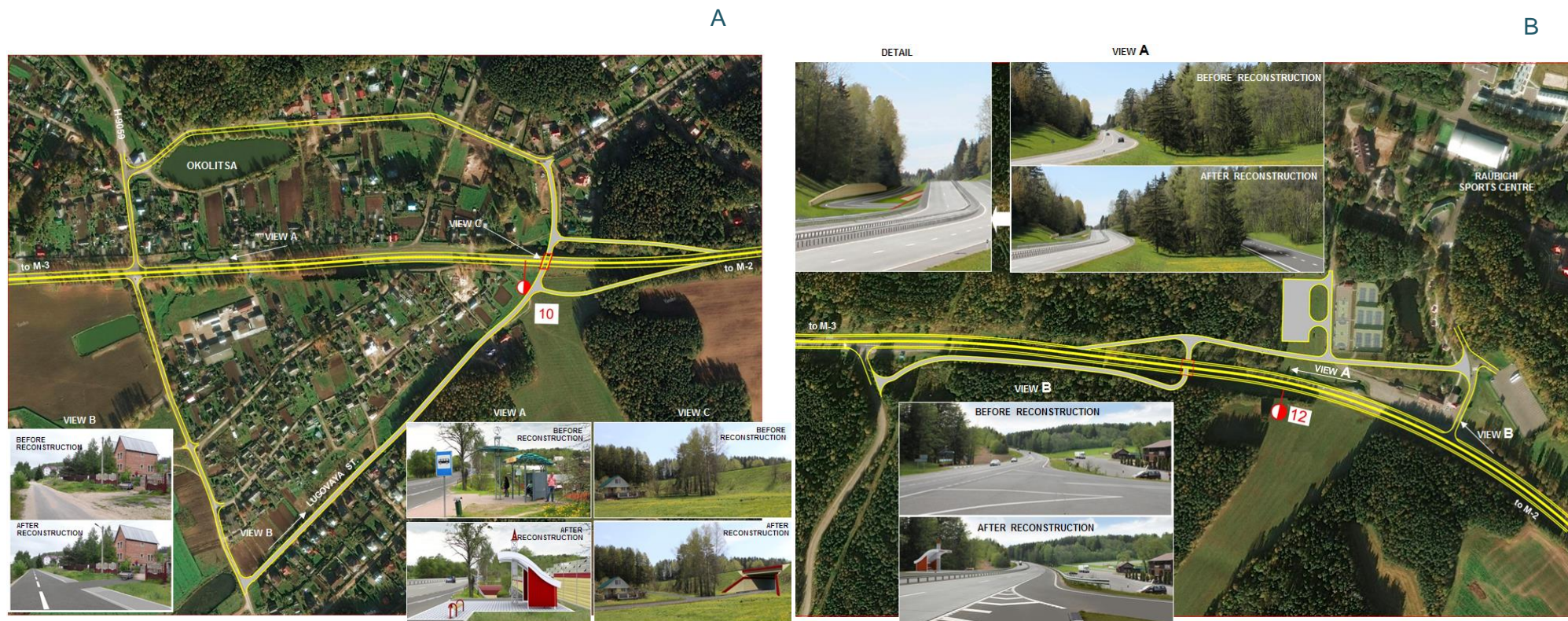


Figure 2.2-4 Schematics of new intersections (A) at the village of Okolitsa and (B) near Raubichi sports Centre



Figure 2.2-5 the design of the entrances to the pedestrian underpasses

2.2.6 *Amenity facilities*

Within the section of the P-80 road to be reconstructed, 17 bus stops will be reconstructed and removed and two rest areas will be equipped:

- a new right-side area at the 5.35 km mark; and
- An existing left-side rest area at the 5.6 km mark.

Residential houses located close to the road will be protected with noise shields 6.2 m high. The total length of the noise shields will be around 7 km. (Figure 2.2-6).

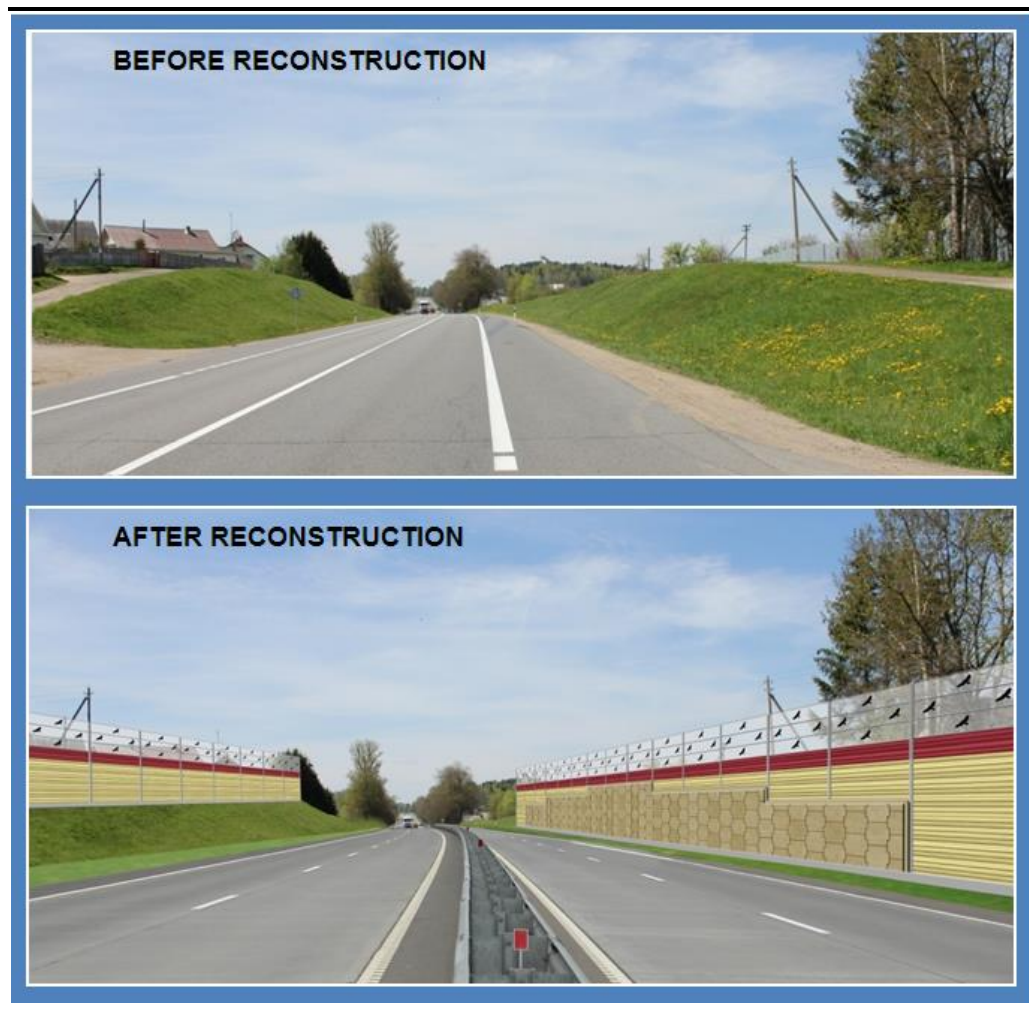


Figure 2.2-6 *View of the road section before and after the reconstruction and installation of noise shields*

A parking lot for visitors will also be constructed near the tennis grounds of the Raubichi sports Centre (Figure 2.2-7).



Figure 2.2-7 Location of the parking lot for visitors in the Raubichi sports centre

2.2.7 *De-icing reagents storage facility*

The Project also envisages construction of a covered storage for de-icing materials with the capacity of around 2,500 tons. This reagents storage facility will be constructed within the premises of the existing LDD-54 linear road department in the village of Ostroshitsky Gorodok (Figure 2.2-8).

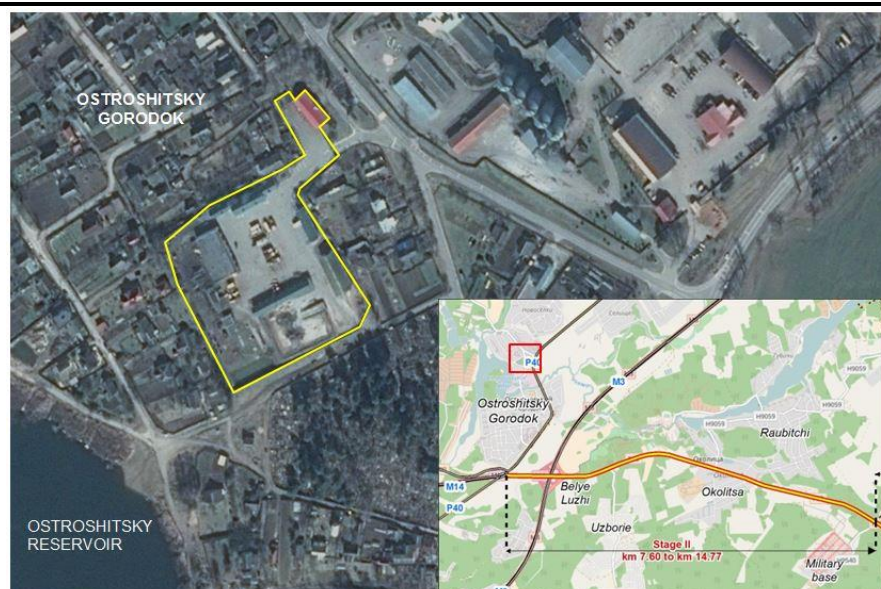


Figure 2.2-8 Location of the reagents storage facility the village of Ostroshitsky Gorodok

2.3 *KEY CONSTRUCTION SOLUTIONS*

One half of the road will be closed for project-related activities. Traffic will be allowed on the other half of the road. A construction base will be erected at the 12 km mark on the right side of the road. The base will be used for temporary storage of construction materials and metalwork.

2.3.1 *Construction period*

Construction is to begin in January 2018 and is expected to last 22 months for each stage. Stages 1 and 2 of the Project will be implemented in parallel. Acceptance and commissioning time included, the total construction duration will be 23 months.

2.3.2 *Construction works*

The construction phase will include the following key activities:

- Preparatory activities (clearing of the road reservation; topsoil removal and stockpiling; re-installation of utility lines; construction of temporary facilities etc.);
- Construction of the roadbed;
- Installation of the road topping;
- Construction of road facilities and protective structures.

Construction activities will include rearrangement of services (utility lines):

- overhead and buried cable communication lines;
- Power Transmission Line (PTL) 0.4-10 KV;
- Power Transmission Line 35-330 KV; and
- gas pipelines.

The Client will obtain technical specifications for the reconstruction of services. The major and technically complex services will be reconstructed by specialized contractors responsible for operation and maintenance of these services. Changes to minor service/utility lines will be made using own resources of the Client.

2.3.3 *Project requirements in personnel and construction materials*

At the time of this report there were not accurate data on the needs of the construction workforce in project design documentation. According to the expert assessment of the Designer, the construction personnel headcount for each stage is estimated will not exceed 200 persons.

Construction works will be performed by contractors based in Minsk to be commissioned by RUE MinskAvtodor-Centre. The construction personnel will be residing in Minsk. Workers will be transported to the workplace by the transport of construction constructor.

The requirement in construction materials is presented in (Table 2.3-1) below.

Table 2.3-1 *The Project's requirement in main construction materials*

Construction material	Requirement		
	Stage 1 0.000-7.600 km section	Stage 2 7.600-14.770 km section	Stage 1
Sand-gravel mix; stone-sand mix	76,700 m ³	72,826 m ³	14,9526 m ³
Sand	32,201 m ³	30,708 m ³	62,909 m ³
Broken stone	36,147 m ³	35,451 m ³	41,598 m ³
Macadam mixtures	24,965 m ³	23,641 m ³	48,606 m ³
Asphalt concrete mixture	104,251 t	99,788 t	204,039 t
Heavy concrete	31,091 m ³	26,350 m ³	57,441 m ³
Lean concrete	11,597 m ³	9,829 m ³	21,426 m ³
Cement	549 t	797 t	1,346 t

2.3.4 *Transportation of cargoes*

The sources of the materials and transportation distances are presented in (Table 2.3-2) below. It is planned that cargoes will be transported by Beldortrans Company that is a part of the Belarus Ministry of Transport and Utilities. This is main cargo company at construction and reconstruction of highways of the Republic of Belarus. The company specializes in the bulk cargoes transportation by dump trucks (20-32 tons).

Table 2.3-2 *Average transportation distances for construction materials and metalwork*

Name	Supplier	Transportation distance	
		Stage 1 activities, km	Stage 2 activities, km
Materials to be brought to the road			
Asphalt concrete	Korolyov Stan asphalt and concrete plant	13	21
Concrete	The cement and concrete plant of the Korolyov Stan asphalt and concrete plant	13	21
Broken stone	RUPP Granit	53	46
Bitumen	Zaslavl asphalt and concrete plant	53	46
Culvert sections	Spetszhelezobeton plant	53	46
Small concrete articles, border stone	Minskzhelezobeton plant	36	44
Large concrete articles	Fanipol concrete and metalwork plant	65	73

Name	Supplier	Transportation distance	
		Stage 1 activities, km	Stage 2 activities, km
Macadam mixtures	Base, right side, 12.0 km mark	8	2
Sand-stone mix	Base, right side, 12.0 km mark	8	2
Topsoil	From cutting	1	1
Sand	Cherkassy sand quarry	60	60
Water	A water pond	2	3
Materials to be brought to the Korolyov Stan cement and concrete plant			
Cement	JSC Krasnoselskstroyaterialy	47	47
Granite macadam	RUPP Granit	47	47
Sand for cement concrete	Cherkassy sand quarry	53	53
Materials to be brought to the construction base (right side, 12.0 km mark)			
Broken stone	RUPP Granit	45	45
Crushing sievings	RUPP Granit	45	45
Granular asphalt	Stockpile on a pad	1	1
Topsoil	From cutting	1	1

Routes for transportation of building materials and constructions or estimated intensity of the goods traffic were not determined at the time of this Report. Proposed material transportation routes are indicated in *Figure 2.3-1*.

The location of the existing quarries/ borrow pits and asphalt concrete and cement concrete plants allows assumption that material and goods will be carried via following local roads and streets of the settlements:

- Cherkassy, Fanipol (H8395);
- streets of the City of Fanipol;
- Skuraty, Korolyov Stan (H9037); and
- Streets of the City of Zaslavl.

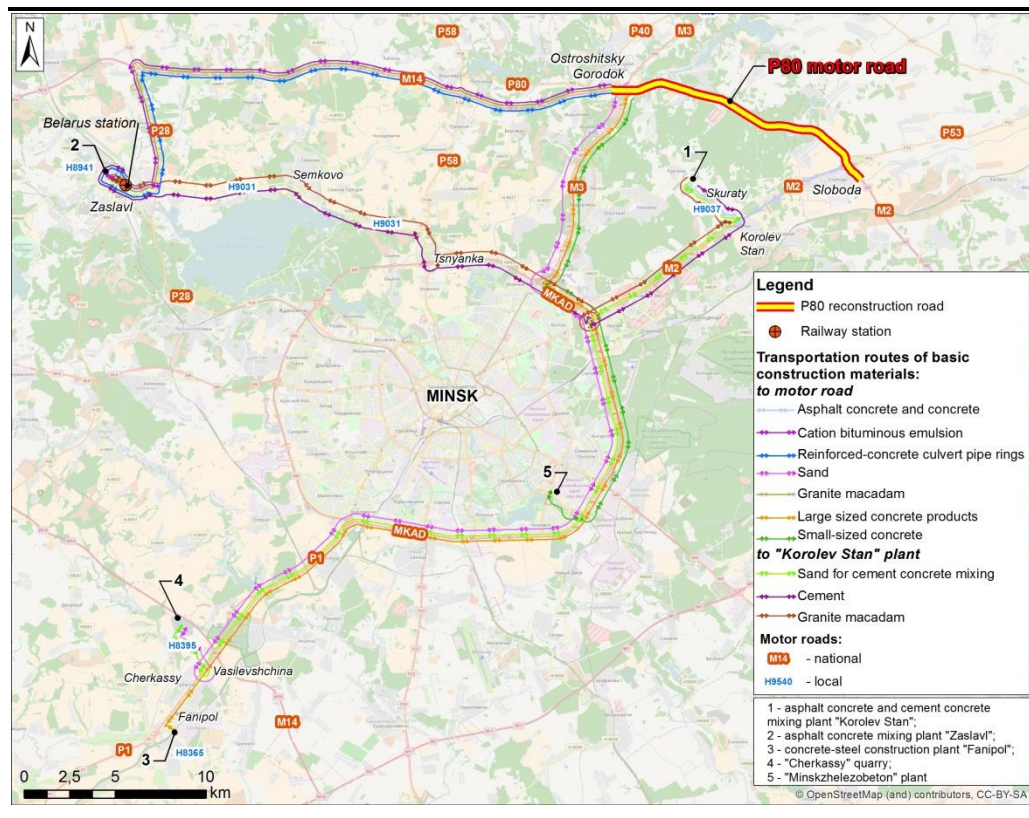


Figure 2.3-1 *Predicted routes for transportation of primary building materials and constructions*

Taking into account building material quantities, carrying capacity of JSC Beldortrans vehicles, duration of construction and potential routes of transportation, the Consultant suggested that the traffic intensity associated with building material transportation may be:

- 9 to 14 vehicles per day at the H8395 section from the Cherkassy quarry to P-1;
- 47 to 89 vehicles per day at the H9037 section from the asphalt concrete plant in Korolyov Stan to M-2.

Due to the absence of data on the building constructions requirements, it is not possible to estimate approximate traffic intensity for the streets of Fanipol and Zaslavl.

2.4 DESIGN ALTERNATIVES

The following alternatives were considered during the design process:

- Comparison of environmental and social implications between the Project and the zero alternative;
- Comparison of two carriageway expansion techniques regarding to the constructability perspective.

In addition to considering the above alternatives, the Client and the Designer made a number of changes to the Project according to the results of stakeholder engagement (see *Section 2.7.2* and *Section 2.7.4*).

Alternatives and Project modifications that occurred prior to the time of writing of this report are discussed below.

2.4.1 *Zero alternative*

The environmental and social impacts of the Project in comparison with the zero alternative have already been reviewed in the preliminary EIA developed in line with the requirements of the Republic of Belarus.

It's EIA developers' opinion that main negative impacts of the Project will be associated with the construction stage. However, its duration will be short and will be determined by the duration of construction works (no longer than 24 months). At the same time, the positive impact of the Project will be long-term by nature throughout the lifetime of the road. The comparison results are presented in the Table 2.4-1 below.

Table 2.4-1 *Comparison of environmental impacts of the Project in the case of the implementation of the "zero alternative"*

	Reconstruction of the P-80 motor road Sloboda-Papernya km 0.000 – km 14.770 (Project) ¹		Zero alternative	
	Positive factors	Adverse factors	Positive factors	Adverse factors
Natural environment: ambient air	An expected improvement of the road's performance properties and traffic conditions will reduce vehicle emissions.	Temporary air pollution by exhaust gases from construction machinery. Contamination associated with vehicle engines and wear of tires and the road during traffic and transportation of construction materials.	The zero alternative will avoid adverse impacts if the Project is not implemented.	Significant air emissions during acceleration and deceleration of vehicles and slow moving traffic due to poor condition of the road and low throughput capacity of the existing road.
Acoustic impact	If the proposed noise protection measures are in place, the acoustic stress at residential areas will be normalized.			The existing noise level is excessive at the adjacent residential area and may increase even further.
Natural environment: soils, land resources, surface and ground water, vegetation	Adoption of the latest construction techniques will minimize the amount of chemical and mechanical contaminants migrating from the road to adjacent territories and into water bodies.	Withdrawal of lands. Significant stress on land and water resources during construction phase. Removal of vegetation within the road easement area.	The zero alternative will avoid adverse impacts if the Project is not implemented.	Continued significant contamination associated with vehicles.
Socio-economic environment	Reduced number of road accidents. Development of roadside services and entrepreneurship. Creation of new jobs related to road maintenance services. Improvement of the region's social and economic performance.			Lost profit if the Project is not implemented.
Transport conditions	Increased cargo traffic. Reduction of transport and maintenance costs (fuel, lubricants, spare parts, servicing, amortization, driver salaries, overheads etc.).	Temporary deterioration of transport conditions during the construction phase.	The zero alternative will avoid adverse impacts if the Project is not implemented.	The expenses to repairing the existing road.

¹ The wordings used in the table are taken from the preliminary EIA.

2.4.2 *Comparison of road expansion options*

The main design-induced criterion for the road widening technique was the need to maintain the possibility of transit traffic at the reconstructed section during construction operations. Hence, two road expansion options were developed:

- Option 1: the road is expanded on both sides, and the existing road axis remains in place;
- Option 2: the road is expanded, and the new axis is moved 2.85 m to the side.

Table 2.4-2 *Comparison of construction technique options for motor road widening*

Stage	Option1 1: The road is expanded on both sides, and the existing road axis remains in place	Option 2: The road is expanded, and the new axis is moved 2.85 m to the side
Stage 1	Widening of the existing roadway to 4 meters with the construction of new two-course asphalt concrete pavement.	The existing pavement is used for temporary traffic. The existing earth roadbed is widened. A new cement concrete pavement is laid on the lean concrete base, and then drainage from the Centre mall is constructed
Stage 2	Traffic on the widened half of the road. The construction of the road base equal in strength of the existing asphalt concrete partially used as the base with subsequent laying of cement concrete pavement. The existing pavement and the earth roadbed should be excavated in road curve areas to the depth a depth of 1.5 meters and within every 30 meters (up to one-third of the total motor road length). It is necessary for laying a storm water drainage system. Backfilling and compacting operations will be performed with the use of manual mechanisms.	The new road pavement is used for traffic. The second half of the road is paved with cement concrete with the use of the existing asphalt concrete as the road base.
Stage 3	The new road pavement is used for traffic. The second half of the road is paved with cement concrete with the use of previously laid asphalt concrete as the road base.	

Based on the characteristics given in the table above (Table 2.4-2), Option 2 has a higher constructability potential, it was chosen for further development.

2.4.3 *Project design changes as a result of stakeholder engagement*

2.4.3.1 Changes made after receiving feedback from the representatives of District Executive Committees (District Administrations)

During the meetings held on June 29 and June 30, 2017, representatives of the Company, the Design Team and the Bank Consultant informed representatives of the District Executive Committees of Minsk and Smolevichi districts on Project solutions; in addition, the concept of design solutions was presented concerning major traffic interchanges.

Mr. Mikhail Zagortsev, Chairman of the Smolevichi District Executive Committee expressed his concern in respect of the transport interchange at ramps to the villages of Boguta and Sosnovaya. In his opinion, the proposed design solution would adversely affect the PUE Ozeritsky-Agro which is the main land user in the district.

The solution proposed the absence of left-hand turns at the ramp from the motor road and the entry to the road only to the right side (both sides). No possibility for turning (Table 2.4-3). Thus, the nearest turning to the interchange will be turning at the junction of the P-80 motor road to the M-2 motor road. At that, the M-2 motor road is a toll road for trucks.

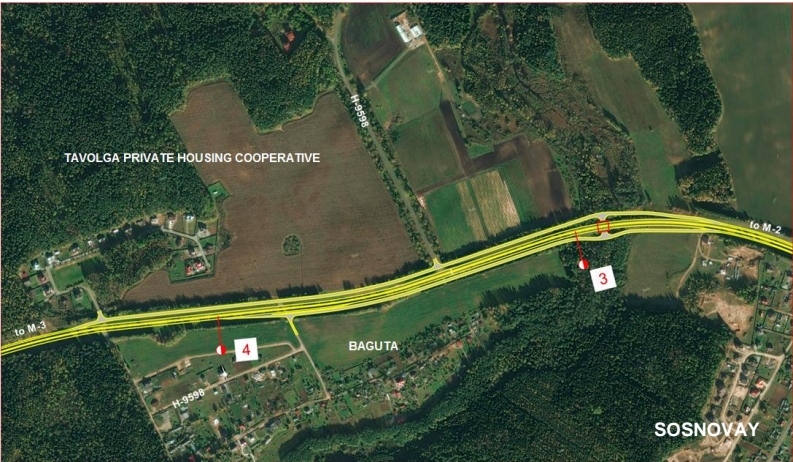

The PUE Ozeritsky-Agro lands and agricultural machinery/equipment of this company are located on both sides of the P-80 motor road. The reconstruction scheme described above would significantly increase transport costs of this company due to:

- a significant increase in travelling (7 km to 8 km for each unit of agricultural machinery and trucks for travelling from one side of the P-80 motor road to its another side);
- Payment for travelling along the M-2 motor road is not high, but continuous year-round trips will result in quite significant costs.

After discussing the aspects described above, both the Client and Designer decided to propose alternative transport interchanges near Baguta and Sosnovaya villages. The alternative option provides for the construction of local roads for agricultural machines and vehicles (Table 2.4-3).

The alternative was worked out rather promptly in the course of consultations with stakeholders held on July 31, 2017. The Designer and the Client submitted a new option for discussion. By the time of this Report preparation, ERM had not got information on negative feedback regarding this option to the address of the Designer or the Company.

Table 2.4-3 *Changes in the interchange near the villages of Baguta and Sosnovaya*

	Original design	Modified design
Interchange schematics		
Reasons for change in the interchange schematics	<p>Prohibition of left turns and the location of the interchange will result in additional expenditures for the Ozeritsky-agro farming enterprise. To cross the reconstructed road P-80 near the Sosnovaya, transport will need to use the toll section of the M-2 highway at the interchange near the Burial Mound of Glory Memorial.</p>	<p>The road axis shifted to the North and additional local roads from Sosnovaya to the interchange in Baguta will allow for crossing the P-80 at that interchange, avoiding toll roads.</p>

2.4.3.2 Changes made after consultations with local residents

Extended consultations with stakeholders were held on July 31, 2017 with participation of representatives of the Company, the Designer and Bank Consultant (details see in Section 2.7.4).

Residents of the village of Okolitsa actively expressed their negative attitude to the proposed solutions regarding traffic on the P-80 motor road through the Lugovaya and Solnechnaya villages. Detailed description of the risks and concerns of local residents was given in the Minutes of consultations with stakeholders (Annex 3).

In relation to concerns of local residents, the Client (immediately during the consultations) made a decision to change the traffic interchange scheme in the village of Okolitsa.

The transport interchange scheme will be reviewed during the meeting of the Scientific and Technical Council (STC), which will be held on August 3, 2017 under supervision of the Ministry of Transport and Communications of the Republic of Belarus.

The new scheme and alternative design solutions will be presented to local residents for further discussion. At the time of writing this Report, a preliminary version of the updated design solutions was available on the "MinskAvtodor Center" website (Figure 2.4-1).



Figure 2.4-1 *Alternative version of the intersection proposed by the Designers after consultation with the residents of Okolitsa village (source: <http://www.maddor.by/news/n-pr?id=461>)*

The proposed alternative will require further studies in relation to the engineering aspects and land allocation issues. It is also apparent that this option affects the interests of other groups of local residents.

By the time of issuing this Report, no information had been made available about the current ownership of the alternative land plot to be affected by the Project. No information about opinions of local residents regarding the proposed solutions. In this regard, assessments described in Section 6 deals with the basic design solution given in the Project design documentation. Alternative solutions will be assessed in the course of updating the Report on results of the second round of public consultations.

2.5 *EMBEDDED MEASURES AIMED AT POTENTIAL ENVIRONMENTAL IMPACT PREVENTION AND/OR MITIGATION*

A number of measures aimed at prevention and mitigation of any potential environmental impacts of the proposed activities were recommended based on the results of the preliminary EIA. Any details concerning execution of the recommended measures will be specified later during the final impact assessment.

Measures recommended for the construction and operation stages are listed in the tables below (Table 2.5-1 and Table 2.5-2).

Table 2.5-1 *Potential impact prevention and/or mitigation measures during construction*

Environmental media	Measures
Ambient air	<p>Compliance of fuel, materials, products and equipment used for construction works with the requirements of the national legislation;</p> <p>Compliance of construction techniques with the requirements of the national legislation;</p>
Noise impacts	<p>Compliance of fuel, materials, products and equipment used for construction works with the requirements of the national legislation;</p> <p>Compliance of construction processes with the requirements of the national legislation;</p>
Surface and ground water	<p>Compliance of the proposed Project activities within riparian buffer strips and water protection zones of surface water bodies with the requirements of the national legislation;</p> <p>Treatment of storm water run-off from the roadbed if no diversion outside riparian buffer strips is possible;</p> <p>Ban on unauthorized parking of vehicles;</p> <p>Storage of construction materials, products and structural units in designated areas;</p> <p>Accumulation of domestic wastewater in concrete sumps with subsequent hauling to wastewater treatment facilities;</p> <p>Surface water drainage and clarification on sites where</p>

Environmental media	Measures
	<p>water is regularly used for dust suppression;</p> <p>Reuse of water for dust suppression after clarification;</p> <p>Prohibition of storage and discharge of materials and substances generated during construction works to water bodies and ground surface depressions;</p> <p>Monitoring of littering of watercourses located near construction sites;</p> <p>Arrangement of collecting ditches with settling pits around construction sites;</p> <p>Fueling and servicing of road building equipment and vehicles in designated areas;</p>
Land resources and soil	<ul style="list-style-type: none"> • Application of the right-of-way minimization criterion at the design stage and confining the work to the allocated boundaries during construction; • Reclamation of lands to be temporarily used for the Project activities followed by passing of land title to land users; • Stripping and stockpiling of topsoil to be used for land reclamation and stabilization of roadbed embankments;
Plant life	<ul style="list-style-type: none"> • Execution of the proposed works in the Prilepsky Protected Landscape Area in compliance with requirements to carrying out economic activities within the boundaries of natural reserves and interaction with the Minsk District Executive Committee, which manages this protected area, at the design and construction stage; • Compensatory reforestation or reimbursement of the loss of tree vegetation on forest lands and in settlements; • Confining the work to the right-of-way boundaries during construction; • Ban on hot works and burning of debris in high fire hazard areas; • Storage of construction materials, products and structural units in designated areas; • Stockpiling of felling debris in designated areas, removal of felling debris; • Measures aimed at prevention of mechanical damage of trees by working road building equipment and filling of root collars of trees;
Wildlife	<ul style="list-style-type: none"> • Ban on filling of natural depressions, artificial water bodies and artificial depressions with signs of water stagnation in spring; • Ban on burning of felling debris; • Ban on ingress of the road building equipment into the adjacent areas; • Ban on cutting of trees and shrubs in riparian areas of water bodies used by amphibians for reproduction; • Execution of additional field surveys in spring to identify migration corridors of amphibians;

Environmental media	Measures
	<ul style="list-style-type: none"> Removal of tree vegetation in autumn and winter as far as possible;

Table 2.5-2 *Potential impact prevention and/or mitigation measures during operation*

Environmental media	Measures
Ambient air	Reduction of deceleration/acceleration lanes and increasing the traffic speed due to motorway expansion;
Noise impacts	Landscaping and infrastructure development; Installation of noise barriers;
Surface and ground water	Diversion of storm water run-off from the roadbed outside riparian buffer strips; Treatment of storm water run-off from the roadbed if no diversion outside riparian buffer strips is possible; Construction of the de-icing reagents storage facility to prevent any potential pollution of water in the Ostroshitskoye Water Reservoir;
Land resources and soil	<ul style="list-style-type: none"> Construction of culverts and ditches in the roadbed embankment; Stabilization of roadbed embankment slopes and bottoms of ditches;
Flora	—
Fauna	<ul style="list-style-type: none"> Construction of culverts and ditches in the roadbed embankment; Temporary imposing of speed limits in areas of migration routes of amphibians and posting of the corresponding warning signs if migration corridors of amphibians are discovered; Arrangement of a 30 m wide right-of-way where cutting of shrubs and mowing will take place; Use of closed (covered) waste containers in rest areas and regular waste removal; Arrangement of a special crossing for ungulates at road segment km 5.9; Arrangement of mesh wire fencings on both sides of the road; Posting of signs warning of wild animals; Ban on mowing motorway verges during the breeding season of coleoptera insects (last ten days of May, first ten days of June, first ten days of July).

Land acquisition of private land for the purpose of the Project is limited to one land plot required for the construction of the underpass under the highway P-80 in Okolitsa settlement (*given the design solutions outlined currently in the Project Documentation. This solution is subject to revision – see Section 2.4.2*). At the moment the plot is not built up and is for sale, as evidenced by the ad on the fence.

Land acquisition from legal entities is also limited to only land plot – agricultural enterprise PUE «Ozeritskiy-Agro».

At the time of reporting, a the private property owners potentially affected by the Project are preliminary identified.

Formal negotiations with landowners and/or land users will be conducted in the later stages of the Project, after final approval of design solutions.

Questions of compensation to affected landowners will be considered within the frames of the legislation of the Republic of Belarus:

- loss of production of agricultural enterprises affected by land acquisition is compensated in material terms;
- the private land plot can be purchased at a cost not below cadastral cost adjusted for inflation from the time the assessment or it can be exchanged for an equivalent area.

Information gathering

During Feasibility Stage and National Impact Assessment the representatives of the Client and the Designer consulted with the local authorities. Official requests of information were sent in March – May 2017 to the following organizations:

- Minsk district inspection of natural resources (the Minsk district Executive Committee),
- Smolevichi district inspection of natural resources (Smolevichi district Executive Committee),
- State forestry management unit «Borovlyansky leskhoz»,
- Republican state and public Association « Belarusian society of hunters and fishermen» (Minsk and Smolevichi units),
- State scientific institution «Institute of history of NAS of Belarus»,
- Department of Geology of the Ministry of natural resources and environmental protection,

- State Enterprise «Republican center for hydrometeorology and control of radioactive contamination and environmental monitoring».

The responses received were taken into account in the National EIA and described in the Annexes to the report on the results of the National EIA

2.7.2 *Meeting with representatives of District Executive Committees*

In July 2017 during Gap analysis exercise and preparation of documents for disclosure of Project information by Bank Consultant the primary consultations in Minsk and Smolevichi district executive committees were conducted by representatives of Client and Designer.

During the meeting in Minsk district executive Committee the representative of the Bank identified the expected implementation period of the Project.

At the meetings in Minsk and Smolevichi district Executive committees, representatives of the Designer and the Client presented the main design decisions on reconstruction of the highway P-80.

The consultant collected information on the socio-economic conditions of the Project implementation, as well as the concerns and expectations of the representatives of the administration associated with the implementation of the Project.

During the meeting, in the Smolevichi district Executive Committee representatives of the Committee raised the issue of traffic management on existing transport interchange, near the Sosnovaya settlement for freight transport of PUE «Ozeritskiy-Agro». The prohibition of left turns and the location of the interchange will result in additional costs due to the need of using the paid section of the motorway M-2 at interchange at the Mound of Glory.

Following the discussion, the Client and Designer decided on considering alternative options on interchange location. The alternative was designed with the construction of the local passes for agricultural machines and vehicles (*see Section 2.4.3*).

2.7.3 *Public discussion of National EIA report*

The official procedure¹ for public discussion of the National EIA report in Smolevichi and Minsk districts started in In July 2017 (Table 2.7-1). EIA report in electronic form posted on the Client website for review by all interested parties within the frames of procedure for public discussions:
<http://www.smolevichi.minsk-region.by/dfiles/14-07-2017-1.pdf>.

¹ In accordance with the requirements of the legislation of the Republic of Belarus

Table 2.7-1 *Public consultation on the ESIA Report*

District	Disclosed information	Consultation start date	Consultation finish date
Smolevichi district	Information about discussions on the website of Smolevichi Executive Committee Report for Preliminary EIA in electronic format on the website of the Executive Committee http://smolevichi.minsk-region.by/ru/aktualnaya-informatsiya/item/1591-uvedomlenie-o-provedenii-obshchestvennogo-obsuzhdeniya.html	July 15, 2017	August 15, 2017
Minsk District	Notice of public hearings http://www.maddor.by/news/n-d-m?id=457 Publication of the report in electronic form on the website "Minskavtodor Center"	July 15, 2017	August 15, 2017
	Information about discussions on the Internet site of the Minsk Executive Committee Report on Preliminary EIA in paper format in Ostroshitsky Gorodok http://mrik.gov.by/ru/obsuzhdenia/viw/uvedomlenie-o-provedenii-obshchestvennogo-obsuzhdenija-otcheta-ob-otsenke-vozhdejstviya-na-okruzhajushchu-9827/	July 29, 2017	August 28, 2017

In accordance with the procedure prescribed in the Republic of Belarus, the discussion of the results of the EIA in the form of a meeting of Project developers and stakeholders only takes place if the Customer receives the written request, but not earlier than 25 days after disclosure.

It is obvious that the parties affected by the Project (in particular, residents on the outskirts) are interested in such discussions and a formal application was received at the Client's site.

At the time of issue of this report the Consultant has no information on dates for discussions in the form of a meeting.

2.7.4 *Consultations with stakeholders*

Consultations with stakeholders for Project discussion were conducted on July 31st 2017 (Table 2.7-2).

The main design decisions concerning the reconstruction of the road section R-80 Sloboda – Papernya km 0.0 – km 14.7 were presented during the meetings. Representatives of the Client, Designer and Consultant attended the presentation.

Table 2.7-2

Time and venue, number of participants of stakeholder consultations

District	Meeting location	Date and time	Number of stakeholders
Smolevichi district	Sloboda agro settlement, school building	31.01.2017 11:00	32 persons: <ul style="list-style-type: none"> • Citizens of Sosnovaya village; • Citizens of Okolitsa village; • Representative of Sport Center "Raubichi".
Minsk district	Bolshevik agro settlement, building of village council	31.01.2017 16:00	15 persons: <ul style="list-style-type: none"> • Citizens of Okolitsa village, • Citizens of Belie Luzhi village; • Citizens of Ostroshitsky Gorodok settlement.

Stakeholders were informed about the ESIA and the peculiarities of procedure in accordance with national legislation and the requirements of the Bank. In particular, stakeholders were notified of the contact information for sending complaints, observations, comments and suggestions.

Meeting participants took an active discussion on design decisions. Part of the concerns and suggestions were formulated in written form and handed over to representatives of Client during meetings answers on the outcome of these appeals will be sent to Client at the addresses listed in addresses.

The list of questions, concerns and suggestions from stakeholders received during the meetings and the responses by representatives of the Client and the Designer are presented in *Annex 3*.

During discussions the following decisions were taken:

- Presentation of the Project, including layout of reconstruction of the highway and the main project decisions, will be posted on the website of the Client for consultation of the population within five days of discussions (posted August 2nd 2017 on the web site in the section "news" <http://www.maddor.by/news/n-pr?id=460>).
- To raise the issue of revising design decisions on transport interchange in Okolitsa settlement in connection with the concerns of local residents. The issue is to be raised on the scientific and technical Council (STC), which will be held on 3 August 2017 in the Ministry of transport and communications of the Republic of Belarus. Transport interchange scheme will be revised, alternative design solutions will be presented to the citizens.

Additional meetings will be held with citizens of Okolitsa settlement to harmonize the updated design solutions. If necessary, few meetings will be held, to reach a compromise solution.

In addition, Bank developed a Communication with Stakeholders Plan for a Project Consultant. Activities under the SEP will also be implemented by the Company.

EMBEDDED MEASURES AIMED AT POTENTIAL SOCIAL IMPACT PREVENTION AND/OR MITIGATION

Project provides for a number of measures aimed at prevention and mitigation of any potential social impacts.

Any details concerning execution of the recommended measures will be specified later during the final impact assessment.

Measures recommended for the construction and operation stages are listed in the tables below (Table 2.8-1 and Table 2.8-2).

Table 2.8-1 *Potential impact prevention and/or mitigation measures during construction*

Social component	Measures
Transport infrastructure	Selection of building materials quarries, among other factors, was based on minimizing the haul distance;
Cultural heritage	Design of the P-80 road, its passages and viaducts considers minimum land acquisition. The road after the reconstruction will be fully in line with the existing road axis. In this regard, potential impacts on cultural heritage are minimized.

Table 2.8-2 *Potential impact prevention and/or mitigation measures during operation*

Social component	Measures
Public health	Reduction of air emissions of vehicles moving along the road P-80; Reduction of noise of vehicles moving along the road P-80;
Road safety	Prohibition of left turns and intersections in one level;
Land use	Design of the P-80 road, its passages and viaducts considers minimum land acquisition. The road after the reconstruction will be fully in line with the existing road axis. Land acquisition will be required only for the road extension and passages.

3.1

REQUIREMENTS FOR DEVELOPMENT OF THE ESIA PACKAGE FOR INVESTORS

This chapter describes the EBRD requirements for the development of a document package for a loan application.

The EBRD will seek to ensure that the projects it finances are designed and operated in compliance with applicable regulatory requirements and good international practice related to sustainable development. The main document, which determines conceptual requirements for the projects financed by the Bank, is the EBRD Environmental and Social Policy¹ ('ESP'). More detailed requirements covering key areas of environmental and social impacts and issues are established in a set of specific Performance Requirements ('PRs') included in the ESP document. The integral element of all PRs is the requirement for compliance with the national legislation and good international practice reflected in international standards and agreements and requirements of other international financial institutions (IFIs).

Consequently, for the success of the EBRD loan application the Project must meet the requirements and standards established in the following documents:

- EBRD Environmental and Social Policy (2014) and Performance Requirements established in this policy document:
 - PR 1: Assessment and Management of Environmental and Social Impacts and Issues
 - PR 2: Labour and Working Conditions
 - PR 3: Resource Efficiency, Pollution Prevention and Control
 - PR 4: Health and Safety
 - PR 5: Land Acquisition, Involuntary Resettlement and Economic Displacement
 - PR 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources ²
 - PR 8: Cultural Heritage³

¹ EBRD Environmental and Social Policy, May 2014 (<http://www.ebrd.com/downloads/research/policies/esp-final.pdf>)

² PR 7 (Indigenous Peoples) is not applicable to this Project

³ Currently, PR 9 (Financial Intermediaries) is not applicable to this Project

- PR 10: Information Disclosure and Stakeholder Engagement.
- International Conventions.
- EU Environmental and Social Standards:
 - Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment (EIA Directive, 2014)
 - Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control) (Industrial Emissions Directive)
 - Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
 - Directive 2009/147/EC on the conservation of wild birds.
- Requirements of International Financial Institutions:
 - Performance Standards on Environmental and Social Sustainability of the International Finance Corporation (IFC), 2012
 - IFC General Environmental, Health, and Safety Guidelines, 2007
 - IFC General Environmental, Health, and Safety Guidelines for Toll Roads, 2007
 - Environmental, Health, and Safety Guidelines for Construction Materials Extraction, 2007;
 - World Bank Environmental operational policies.
- National laws and regulations.

3.1.1 *EBRD Environmental and Social Policy, 2014 and Performance Requirements*

EBRD will decide if the project should be financed based on the environmental and social appraisal that "will be appropriate to the nature and scale of the project, commensurate with the level of environmental and social impacts and issues, and with due regard to the mitigation hierarchy". All proposed projects will be categorised based on environmental and social criteria to determine the level of potential environmental and social effects and identify the character and scale of issues that must be investigated.

According to Appendix 1 to the EBRD Environmental and Social Policy, "Construction of motorways, express roads and lines for long-distance railway traffic; airports with a basic runway length of 2,100 meters or more; new roads of four or more lanes, or realignment and/or widening of existing

roads to provide four or more lanes, where such new roads, or realigned and/or widened sections of road would be 10 kilometers or more in a continuous length” are assigned to Category A projects.

The Project envisages reconstruction of the existing P-80 road’s section 0.000 – 14.770 km with a total length around 15 km. The Project provides for expanding of the existing two-lane road to four lanes and increasing the road class from Category 2 to Category 1¹. The length and width of the P-80 road’s section and the fact that it passes through different administrative districts enable categorisation of the Project as 'A'. This means that implementation of the Project must be supported by certain mandatory activities and procedures.

In addition, as noted previously, the following Performance Requirements should be met during development of the design documentation (*Table 3.1-1*).

¹ TKP 45-3.03-19-2006 (02250). Motor roads. Design Standards.

Table 3.1-1 **EBRD PR requirements**

Project Requirements		Comment on applicability to the Project
PR 1: Assessment and Management of Environmental and Social Impacts and Issues	This Performance Requirement establishes the importance of integrated assessment to identify the environmental and social impacts and issues throughout the life of the project.	<p>The Project is a Category A project and therefor the following requirements are applicable:</p> <ul style="list-style-type: none"> • carry out a comprehensive Environmental and Social Impact Assessment (ESIA), including a scoping stage to identify the potential future environmental and social impacts (scoping study), examination of alternatives to the source of such impacts, and development of recommended measures needed to avoid/minimise potential impacts; • establish and maintain an Environmental and Social Management System (ESMS); • establish as appropriate environmental and social policies; • develop an Environmental and Social Management Plan; • establish and maintain an organisational structure for ensuring on-going compliance with relevant national regulatory requirements and the PRs; • identify risks associated with its supply chain and exercise reasonable control of primary suppliers; • monitor the environmental and social performance of the project to determine whether the project is being implemented in accordance with the PRs or to take the necessary action to ensure such compliance.

Project Requirements		Comment on applicability to the Project
PR 2: Labour and Working Conditions	This Performance Requirement establishes the need for establishing a human resources management system which guarantees respect of workers' rights ¹ and provides them with safe and healthy working conditions.	Besides the compliance with applicable labour requirements of RB, the Project has to provide safety working environment during the construction works in according with national and international requirements, as well as fire safety on site and in workers camp. A set of Management Plans to manage these risks shall be developed and implemented by the Project, including training of personnel.
PR 3: Resource Efficiency and Pollution Prevention and Control	This Performance Requirement recognises the need to adopt and adhere to the approach which enables the client to avoid (where possible) or control the harm to the environment caused by the project. The design and operation of a project should address the issues of resource efficiency, management of harmful and hazardous substances and materials, waste generation, emissions and discharges, including GHG emissions.	Issues of rational use of natural resources are of interest within the Project framework, in line with handling of harmful and hazardous materials, optimization of waste volumes, wastewater discharges and assessment of emissions, including greenhouse gases.
PR 4: Health and Safety	This Performance Requirement recognises the need to establish a system for managing health and safety of workers, consumers, and affected communities.	Within the Project framework it is recommended to conduct the assessment of road traffic safety for pedestrians, bikers, low speed vehicles, as well as safety during the construction works. Also it is required to conduct the assessment of the Project impact on community health during the operation stage – the issue of special concern for the road sections located adjacently to houses.
PR 5: Land Acquisition, Involuntary Resettlement and Economic Displacement	This Performance Requirement establishes the need to avoid or minimise involuntary resettlement and to ensure fair compensation to affected persons. The client will carry out a socio-economic baseline assessment and identification of potentially affected communities and individuals.	This Project does not require physical resettlement ² ; however, economic displacement is to be expected. Consequently, the client must develop a Livelihood Restoration Plan and a Grievance Mechanism, monitor livelihood restoration and provide stakeholders with access to the information about resettlement.
PR 6: Biodiversity Conservation and	This Performance Requirement establishes the need to develop biodiversity conservation measures.	Requirements for this Project include: <ul style="list-style-type: none"> • preliminary assessment of the risks and impacts on biodiversity

¹ Projects are required to comply, at a minimum, with (i) national labour, social security and occupational health and safety laws, and (ii) the fundamental principles and standards embodied in the ILO conventions.

² According to information available at the time of the Motorway Project Scoping Report

Project Requirements		Comment on applicability to the Project
Sustainable Management of Living Natural Resources ¹	<ul style="list-style-type: none"> 	<p>(potential loss of habitat, degradation and fragmentation, invasive alien species, overexploitation, migratory corridors, hydrological changes, pollution and climate change; identification of critical habitats);</p> <ul style="list-style-type: none"> develop and implement measures to avoid/ mitigate adverse effects and include these measures in the ESMP; <p>If the assessment has identified potential project related impacts to a critical habitat, the client will carry out a detailed assessment of this habitat, and, if necessary, develop a Biodiversity Conservation Plan or Biodiversity Action Plan (as appropriate).</p>
PR 7: Indigenous Peoples	Not applicable	
PR 8: Cultural Heritage	This Performance Requirement establishes the need to identify, as part of the environmental and social assessment process, potential adverse impact on cultural heritage (tangible or intangible). If the potential for such impacts exists, the client must develop measures to avoid/ mitigate such impacts and include these measures in the EMS and ESMP (including consultations with affected community groups). In addition, a Chance Finds Procedure will be required.	In accordance with the conclusion of the Ministry of culture and Institute of history of the NASB it is recommended to conduct additional studies of existing (known) and potentialin objects of cultural and archaeological heritage. The project envisages the carrying out of archaeological examination of the area newly affected by the Project. The assessment of impact on cultural heritage shall be based on the results of the abovementioned archaeological expertise. Chance find procedure has to be developed and implemented for the construction stage.
PR 9: Financial Intermediaries	Currently not applicable. However, its applicability should be addressed in case of Financial Intermediaries involving to the Project financing.	
PR 10: Information Disclosure and Stakeholder Engagement	<p>This Performance Requirement recognises importance of a Stakeholder Engagement process.</p> <p>Stakeholder engagement will involve the following elements:</p> <ul style="list-style-type: none"> stakeholder identification and analysis; 	<p>Within the Project is is required the following:</p> <ul style="list-style-type: none"> development, implementation and regular revision SEP; provide information and reports on the Project implementation to stakeholders in user friendly manner;

¹ PR 7 (Indigenous Peoples) is not applicable to this Project

Project Requirements		Comment on applicability to the Project
	<ul style="list-style-type: none"> • stakeholder engagement planning and implementation of the Stakeholder Engagement Plan (SEP); • disclosure of information and reports related to the project in a manner that is accessible and culturally appropriate; • consultations and public involvement in the decision-making process; • establishing and maintaining of a Grievance Mechanism. <p>For Category A projects the client will carry out a formalised, participatory ESIA process which provides for iterative consultation, incorporation of stakeholder views into the decision-making process, and disclosure of ESAP.</p>	<ul style="list-style-type: none"> • conduct regular consultations with stakeholders, including residents of local communities; • develop, implement and maintain Grievance mechanism.

3.1.2

International Conventions

Reconstruction of the P-80 road's section 0.000 – 14.770 km should meet the requirements of the international conventions and agreements signed and ratified by the Republic of Belarus:

Title	Date and place of signature	Comments on the applicability to the Project and summary of requirements
Climate and Air		
<i>UN framework convention on climate change</i>	1992, New-York	The Client will evaluate predicted GHG emissions and provide for avoidance or mitigation of adverse effects.
<i>Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer</i>	1985, Vienna 1987, Montreal	The Project must not result in "adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer".
<i>Convention on Long-range Transboundary Air Pollution</i>	1979, Geneva	The Project design must provide for measures to limit and, as far as possible, reduce air pollution including long-range transboundary air pollution.
Flora and Fauna		
<i>Convention on Biological Diversity</i>	1992, Rio de Janeiro	The Project must be implemented with due regard to the following principles: <ul style="list-style-type: none"> • Conservation of biodiversity • Sustainable biodiversity use/management • Equitable sharing of the benefits from the use of genetic resources
<i>Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)</i>	1979, Bern	The Project implementation must ensure conservation of wild flora and fauna species and their habitats. Special attention is given to endangered and vulnerable species, including endangered and vulnerable migratory species.
<i>Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)</i>	1979, Bonn	The Project must be implemented with due regard to the principle of conservation of migratory species of wild animals and their habitats.
<i>Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)</i>	1971, Ramsar	The Client will establish if any ecosystems covered by this Convention exist within the Project or in the immediate proximity to the project facilities and will take the adequate protection/conservation measures if required.
<i>Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)</i>	1995, Hague	The Project must be implemented with due regard to the following principles: <ul style="list-style-type: none"> • Prevention of decline of waterbird species nesting, migrating and wintering within the African-Eurasian waterbird migration systems • Restoration of populations of already reduced species.

Title	Date and place of signature	Comments on the applicability to the Project and summary of requirements
Land		
<i>UN Convention to Combat Desertification/ Land Degradation</i>	1994, Paris	The Project (Client) will provide for measures to improve productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources.
Cultural Heritage		
<i>Convention concerning the Protection of the World Cultural and Natural Heritage</i>	1972, Paris	The Client will identify whether objects of cultural and natural heritage covered by this Convention exist within immediate proximity to the project facilities and will take the adequate protection/conservation measures if required.
Social Aspects / Consultations		
<i>Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters</i>	1998, Aarhus	<p>The Client will provide for:</p> <ul style="list-style-type: none"> • access to the Project information; • public participation in decision-making; and • access to justice in environmental matters.
Health and Safety		
<i>ILO C148 - Working Environment (Air Pollution, Noise and Vibration) Convention</i>	1977, Geneva	The Project/Client will provide for measures for the prevention and control of, and protection against, occupational hazards in the working environment due to air pollution, noise and vibration.
<i>ILO C155 - Occupational Safety and Health Convention</i>	1981, Geneva	The Project will provide for measures to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment.
<i>ILO Conventions 29 and 105 (Forced or Compulsory Labour), 87 (Freedom of Association), 98 (Right to Organise and Collective Bargaining), 100 and 111 (Discrimination), 138 (Minimum Age), and 182 (Worst Forms of Child Labour)</i>	-	The Project/Client will provide for measures to prevent discrimination, forced or compulsory labour, or child labour.

3.1.3

EU Environmental and Social Standards

Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment, which amended Directive 2011/92/EU, establishes the need for compulsory assessment of impact of projects which may result in significant adverse effects on the environment. According to Annex I, this Project falls under the category of projects that are subject to such an assessment

The main document that regulates relations in regards to control and management of environmental impact in the European Union is “**Directive on integrated pollution prevention and control**” **Directive No. 2010/75/EU** dated November 24, 2010 (replaced Directive No. 2008/1/EU and Directive No. 96/61/EU). The Directive No. 2010/75/EU does not set fixed maximum emission values but defines recommended methods for design and operation of equipment to ensure environmental protection by means of the “best available techniques (BAT)”.

The following reference documents (BATs) shall be considered during the IA process of the Project financed by the EBRD:

- Reference Document on Best Available Techniques on Common Waste Water and Waste Gas Treatment / Management Systems in the Chemical Sector, February 2003);
- Reference Document on Best Available Techniques for the Waste Treatments Industries, August 2006);
- Reference Document on Best Available Techniques for Energy Efficiency, February 2009).

These documents contain recommended maximum emission values, energy efficiency indicators and other information for reference.

In addition, the Project must respect requirements specified in Directive 92/43/EEC (on the conservation of natural habitats and of wild fauna and flora) and Directive 2009/147/EC (on the conservation of wild birds).

3.1.4

Requirements of International Financial Institutions

In accordance with EBRD ESP, the Project must be in compliance with the requirements of good international practice reflected in requirements of other international financial institutions. Such guidelines should apply if certain requirements are not specified in the EBRD standards.

Guideline Title	Overview of Guideline
Environmental and Social Sustainability Performance Standards (dated January 01, 2012)	Standards set recommendations to identify project risks and impacts. The standards are aimed to facilitate prevention and management of risks and impacts, and to mitigate the consequences to ensure sustainability of the business. They also outline customer’s accountabilities in regards to stakeholders’ interaction and disclosure of operational information about the Project.
General Guidance on Environment Protection, Health and Safety (dated April 30, 2007)	General Guidance is a technical reference that contains general examples of proper international industrial practices. These guides set requirements for: <ul style="list-style-type: none"> • Environmental protection; • Health and safety of employees; • Local public health and safety. Also the Guidance defines maximum allowable emissions and

Guideline Title	Overview of Guideline
	<p>discharges, indicators of resources consumption efficiency and efficiency of measures aimed to mitigate risks and impacts, monitoring program.</p> <p>The following is a part of the Guidance:</p> <ul style="list-style-type: none"> • Measures to reduce, prevent and control air emissions; • Methods for waste water discharge and measures to reduce its toxicity, examples of treatment approaches; • Recommendations for handling hazardous substances including loading/unloading, storage and transportation; • Recommendations for waste management; • Manufacturing factors most hazardous to health and safety of employees, and safety measures; • Measures to manage and mitigate risks for local public. <p>According to the Guidance, major risks shall be managed in accordance with international standards and best practices (e.g. recommendations of OECD¹, EU Seveso II² directive, risk management program of US EPA³).</p>
Environmental, Health, and Safety Guidelines for Toll Roads (dated April 30, 2007)	<p>Industry Sector Guidelines is a technical reference providing additional specific for industry requirements for environmental protection and industrial safety relevant to toll roads projects, not disclosed in the General EHS Guidelines. Guidelines also provide with performance indicators and monitoring of the project implementation.</p>
Environmental, Health, and Safety Guidelines for Construction Materials Extraction (dated April 30, 2007)	<p>Industry Sector Guidelines is a technical reference providing additional specific for industry requirements for environmental protection and industrial safety, not disclosed in the General EHS Guidelines. It also provide with performance indicators and monitoring of the project implementation. Guideline for Construction Materials Extraction applies for extraction activities supporting construction apart from major and complex extraction schemes.</p>
Environmental assessment. Operational Policy (OP 4.01) and Bank Procedure (BP 4.01) for environmental and social assessment of projects (January, 1999)	<p>This standard for environmental assessment of projects includes the following main requirements:</p> <ul style="list-style-type: none"> - Scale and methods are dependent on the potential environmental impacts of the proposed project (4 categories of projects reflecting the potential environmental risk); - It is required to consider project alternatives; - Among priorities is search for project design solutions aimed at prevention, minimization, mitigation of or compensation for negative environmental impacts and enhancement of favourable effects on the environment; - Environmental assessment should take into account the natural environment (air, water and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples; and physical cultural resources; and transboundary and global environmental aspects. Natural and social aspects

¹ OECD, Guiding Principles for Chemical Accident Prevention, Preparedness and Response, Second Edition, 2003.

² EU Council Directive 96/82/EC, Seveso II Directive, extended by the Directive 2003/105/EC).

³ EPA, 40 CFR Part 68, 1996 – Chemical accident prevention provisions.

Guideline Title	Overview of Guideline
	are to be considered in an integrated way.
Natural habitats. Operational Policy (OP 4.04) and Bank Procedures (BP 4.04) referring to natural habitats (June, 2001)	<p>In order to ensure conservation of natural habitats and maintain their functions Client of the Bank must:</p> <ul style="list-style-type: none"> - Prevent significant conversion or degradation of critical natural habitats; - implement the appropriate conservation and mitigation measures.

3.1.5 *Requirements of National Environmental and Social Legislation*

In accordance with the EBRD ESP and PRs, the Project must meet the requirements of the national legislation.

This Section provides a review of the key laws and regulations of the Republic of Belarus which cover the following aspects of the Project implementation process:

- development of design documentation;
- State Environmental Review, environmental and social impact assessment, information disclosure;
- impacts on individual components of the natural environment;
- waste management;
- health and safety (industrial safety, health and safety of personnel and population);
- land management; and
- impact on cultural and historical heritage.

Due to the large number of bylaws which directly or indirectly apply to the Project, the documents listed in this Section are limited to the laws and regulations which establish the key limitations for environmental and social impacts of projects. The List of key applicable Belarussian regulations is given in *Annex 4*.

3.2 *SIA GENERAL METHODOLOGY AND APPROACH*

3.2.1 *SIA Process*

Consideration of social factors, along with environmental factors, throughout the entire lifecycle of the Project (preparatory works, construction operations, production operations, and decommissioning) is an essential prerequisite to

Project implementation in accordance with the sustainable development concept. The environmental and social impact assessment (ESIA) is recognized as the most effective way to ensure such consideration. However, following the request of EBRD that finance the Project, the assessment was limited to social impacts (SIA).

The SIA is a process which comprises systematic prediction and evaluation of potential impacts of the Project on social and socioeconomic components of the Project territory.

The SIA process provides for measures that should be implemented to avoid, minimize, mitigate or compensate adverse impacts caused by the Project and to provide benefits to the extent that is feasible from the technical and economic standpoint.

The SIA process ensures substantive interaction between Project's representatives and individuals/stakeholders who may be affected by and/or interested in Project implementation.

3.2.2 *Identification of the Impact Area*

The key task of a SIA is to identify potential significant social impacts of the Project. During SIA process it is important to define boundaries of the area that is discussed in the report. Areas, that are used for this SIA purposes, are described in *Table 3.2-1*.

Table 3.2-1 *Definition of areas discussed in the SIA*

Area description		Boundaries, used to define social baseline area and area of social influence of the Project
Project Implementation Area		Land allocated for the main and associated Project facilities.
Area of the Project's Influence	Area of direct impact of the Project	Land allocated for the construction period and the area of the sanitary protection zone during operation. Area of potential socioeconomic impacts directly associated with the Project activities (e.g. health impact caused by traffic movement, air pollution, impact on resources used by the local community, etc.).
	Area of indirect impact/ Project implementation area	Area of potential socioeconomic impacts indirectly induced by the Project activities (e.g. increase in the local employment rate and incomes, contacts with the Project personnel, labour migration).

Sources of social impact, both within the implementation area and the area of Project's influence, were identified based on the analysis of the Project design and local specifics.

3.2.3

Baseline Conditions

The SIA describes the baseline socio-economic, occupational and community health and safety conditions.

Social baseline data is presented in the report with the following purposes:

- To identify key social, and socio-economic conditions in the Project area of impact and vulnerable conditions and facilities;
- To provide initial data for future prediction and assessment of potential impacts;
- To support conclusions about the importance, value, sensitivity / vulnerability of social resources and receptors.

The following data sources (including archive data) were reviewed during the SIA process:

- findings of baseline socioeconomic surveys;
- results of the sociological survey of the Project implementation area;
- data from various sources, such as:
 - public authorities and regulators;
 - published documents;
 - expert opinions/ conclusions;
 - interviews with stakeholders; and
 - Internet.

Social baseline of the Project area is presented in *Section 4* of the report.

3.2.4

Overview of the Impact Assessment Methodology

General Provisions

SIA is a sequential process where specific tasks are formulated and solved with a search for answers to the following key questions:

- Prediction of impacts: what are the consequences for the environment as a result of Project implementation?
- Evaluation of significance: whether an impact is significant? How is it important?
- Mitigation of an adverse impact: if an impact is significant, whether anything can be done?
- Assessment of residual effects: whether an adverse impact remains significant after taking mitigation measures?

If significant residual impacts remain, additional mitigation measures and re-assessment of impact can be taken until their predicted level is reduced to the low value in terms of technical and financial feasibility of the Project, and impacts, as such, are recognized as being at an acceptable level.

Prediction of Impacts

Prediction of impacts starts with the identification of **potential impacts** of Project implementation (types of activities, factors of the man-made origin, etc.) on social and socioeconomic components, and human health.

As soon as the range of potential impacts is refined, prediction of impacts caused by the Project on social components is made. The multivariable and diverse range of impacts predetermines the use of various prediction methodologies, including quantitative, semi-quantitative, and qualitative approaches.

Prediction of impacts should consider all the environmental and social management elements inherent in the Project. These elements may include technical (instrumental) or procedural control incorporated in the design documentation. This control should be exercised regardless of the conditions and results of the SIA process.

During SIA implementation, an assessment of potential significant impacts has been made. A due account was made for the following characteristics of impacts:

- Nature of alterations (what is affected and how);
- Magnitude of alterations;
- Extent and scale;
- Duration, frequency and reversibility; where appropriate – the likelihood of impacts as a result of abnormal or emergency situations.

The prediction process was made with regard to the mitigation measures embedded in Project design documents.

Direct, Indirect and Cumulative Impacts

Environmental, social, and health impacts of the Project activities can be:

- **Direct**, i.e. influencing condition, properties or evolution of resources/receptors (parameters);
- **Indirect**, following on from the direct interactions between the Project and its environment as a result of subsequent interactions within the environment; indirect impacts may be of varying magnitude or show themselves at a considerable distance from the source.

Cumulative impacts need to be addressed specifically in the assessment process. These are impacts and effects that arise as a result of an impact from the Project interacting with an impact from another activity to create an additional impact. Cumulative effects may be sudden and incommensurate with the scale and magnitude of the impact factors under consideration, for example, as a result of summation of impacts or historical impacts (accumulated pollution, etc.), or intensification of impacts and effects of the Project throughout its lifecycle.

Evaluation of Impact Significance

The next step in the assessment was to interpret information on impacts in terms of its importance to society and the environment, i.e. *evaluation of significance* of impacts. Thus, decision-makers and stakeholders understand how much weight should be given to the particular issue in determining their view of the Project.¹

As to the cause-and-effect relationship, Project activities act as an impact of the man-made origin and they are composed of specific *kinds of activities*. Social and socioeconomic components and human health act as *receptors* and/or *resources* exposed to impacts.

The **impact significance** evaluation is composed of an integral assessment and in particular:

- *magnitude of impact*;
- *sensitivity, vulnerability/importance* of resources/receptors.

Magnitude

Evaluation of *magnitude* of impacts is composed of accounting its following characteristics:

- Scale;
- Frequency;
- Duration;
- Extent.

¹ This definition recognizes that evaluation requires making decisions based on the opinions and judgments of participants. Though opinions and judgments of participants may vary. Impact assessment presented in this report is based on judgments of the Group of Consultants responsible for the SIA development. Their judgments are formulated based on the rule of law, government policy, the claims of creditors, modern international standards of good practice and the views of stakeholders.

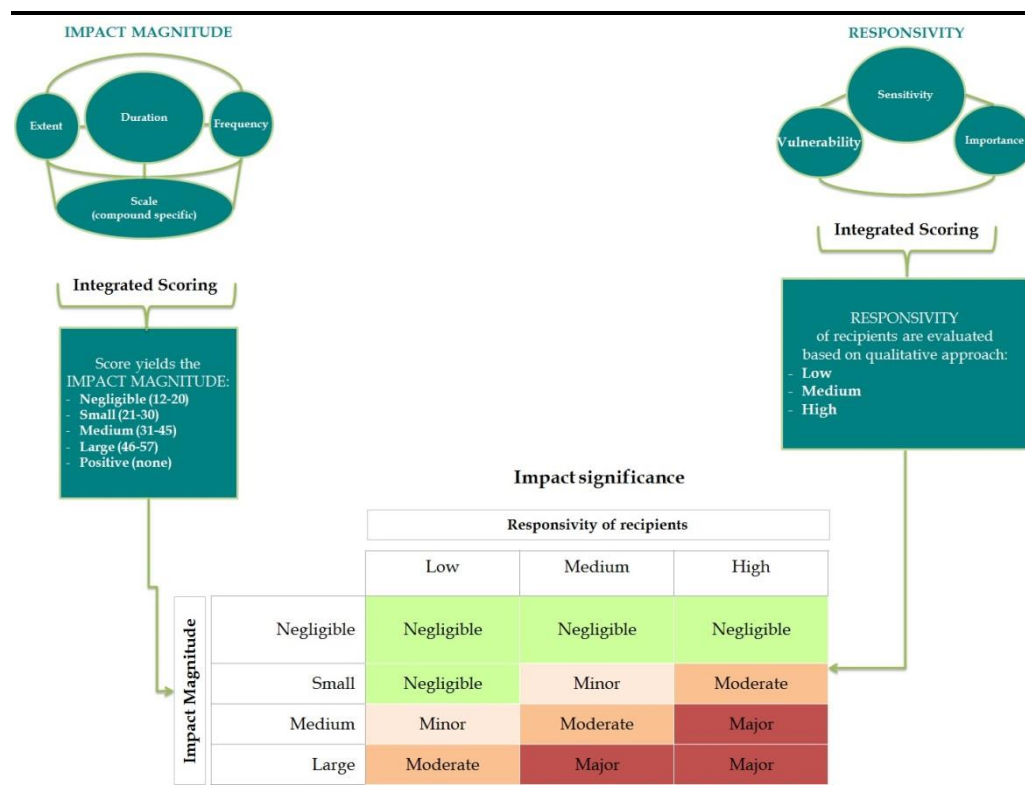


Figure 3.2-1 *Impact significance components*

Magnitude factor

The scale of potential impact is the size (vigour) of social impacts and impacts on human health. This in turn depends on the amount, level, and other characteristics of impacting factors and is related to the properties of the affected object/receptor (resistant state, subjective sensations, etc.).

Using a 4-score scale for evaluating the Scale, impacts can be classified into:

- 1. Negligible;**
- 2. Small;**
- 3. Medium;**
- 4. Large.**

Scale for social and community health impacts is the degree of change to a household level livelihood, individual or household level health status or quality of life. For example, an impact that leads to a fundamental change in the way of life of people or to the nature of relationships within a community or to the livelihood patterns would tend to be considered to be large, whilst one that resulted in only subtle changes in conditions would be considered to be small.

Frequency

The frequency (probability) of impacts and consequences for receptors are determined by the following categories:

1. **Single (unlikely)** – impact occurs once during Project implementation (unlikely, but the potential exists);
2. **Unfrequently, occasionally** – impact caused by the features of the construction or production cycle (there is a probability of occurrence);
3. **Regularly** – impact occurs with a regular frequency (a high probability of occurrence);
4. **Frequent** – as a rule, impact occurs with a frequency of once a month or more (predetermination);
5. **Continuous** – means static impact without discontinuity points over a certain period of time.

Duration

Impact duration is detailed in *Table 3.2-2*.

Table 3.2-2 *Impact duration*

Score	Gradation	Assessment of impacts on the social sphere
1	Instantaneous	Impact during several months
2	Short-term	Impact during up to one year
3	Medium-term	Impacts during certain stages of Project implementation (first and second stages of construction operations, etc.) - several years
4	Long-term	Impact during the Project lifecycle (several tens of years)
5	Permanent	Permanent change in the characteristics of objects

Extent of impacts

The Extent of an impact depends on the impact's type, duration and scale, as well as resistant properties of the resource / receptor. Extent of impacts is detailed in *Table 3.2-3*.

Table 3.2-3 *Impact Extent*

Score	Gradation	Assessment of impacts on the social sphere
1	Site	Impacts within a separate little settlement or within a group of settlements
2	Locale	Impacts within the whole territory or part of administrative district
3	Regional	Impacts within the Minskaya oblast
4	National	Impacts affecting national significant natural resources and sustainable development of nations
5	International	Impacts affecting territories and processes of international importance

Overall evaluation of Magnitude

After evaluation and ranking of Scale, Frequency, Duration and Extent of impacts, an integral evaluation of *Magnitude* value can be determined by summing gradation values, for instance in scores (example of calculating scores is provided in *Annex 3-1*). The resulting score is then determines the categories of impact Magnitude (*Table 3.2-4*).

Table 3.2-4 *Categories of impact Magnitude*

Magnitude of impact	Resulting score
Negligible	12-20
Small	21-30
Medium	31-45
Large	46-57

Evaluation of Resource/Receptor's Responsivity

Besides the above-discussed Impact Magnitude, the other component for evaluation of Impact Significance is the Sensitivity/Vulnerability/Importance of the affected resource/recipient which may be of the physical, biological, cultural, and anthropological nature.

In general, *Sensitivity/Vulnerability/Importance* of the resource/receptor (*Table 3.2-5*) can be evaluated based on the following criteria:

- special features of local communities or individuals, such as resistance to change, rarity, adaptability, diversity, and fragility;
- protected status of communities (e.g. indigenous minorities);
- policy of the regional government;
- opinion of stakeholders;
- economic value;
- expert opinion of specialists involved in the SIA development; and
- international/national standards and regulations.

Responsivity of receptors is also defined based on the nature of impact.

Table 3.2-5 *Defining responsitivity based on Sensitivity/Vulnerability/Importance*

		Vulnerability/Importance		
		Low	Medium	High
Sensitivity	Low	Low	Low	Medium
	Medium	Low	Medium	Medium
	High	Medium	Medium	High

Table 3.2-6 *Categories of Sensitivity/Vulnerability/Importance of Resource/Receptor*

Category of responsitivity	Value
Low	High ability to adapt to changing conditions under the impact of the Project and associated activities
Medium	Limited ability to adapt to changing conditions under the impact of the Project and associated activities
High	Adaptation to changing conditions under the impact of the Project and associated activities is extremely difficult / impossible

Impact Significance

To ensure maximal transparency of the SIA process, impact assessment criteria are clearly determined for every major aspect and type of impacts, as a rule, these criteria consider the possibility of occurrence of the following issues in the course of Project implementation:

- Violation of legislative or generally accepted requirements, for instance, violation of the rights of land-users;
- Adverse impacts on territories or objects under special protection, or valuable resources, for instance, nature reserves historical sites, cultural heritage sites, valuable agricultural lands, and other key ecosystem elements;
- Failure to meet the national policy, for example, in issues related to urban regeneration in areas inhabited by under-privileged people, or issues related to protection of human rights; and
- Non-compliance with generally accepted international practice and standards.

If standards are not available or do not contain sufficient information for ranking the significance, impact significance can be evaluated with consideration of the extent of impacts (including time-frame or duration), and importance or quality (and vulnerability for communities in some cases) of affected receptor. Quality or importance of the resource is determined with consideration of the following issues:

- i) resource's use at the local, regional, national or international level;
- ii) it's importance for local communities or the vast territory;
- iii) it's function in the ecosystem, or
- iv) it's economic importance.

When evaluating vulnerability of receptors (of households, local communities or wider social groups), their likely response to alterations is assessed, as well as their ability to adapt to impacts and manage it.

Impact **significance** is determined by a combination of the designations of Magnitude of impact and Sensitivity / Vulnerability / Importance of Resources / Receptors using the **matrix** (Table 3.2-7).

Table 3.2-7 *Matrix of Evaluation of Impact Significance*

		Responsivity of recipients		
		Low	Medium	High
Impact Magnitude	Negligible	Negligible	Negligible	Negligible
	Small	Negligible	Minor	Moderate
	Medium	Minor	Moderate	Major
	Large	Moderate	Major	Major

When evaluating the Significance of social impacts and impacts on human health, it is necessary to take into account not only impact parameters described above, but also the possibility/ necessity of measures aimed to prevent/avoid and mitigate/reduce the potential negative impacts.¹

In this context, the **resulting impact Significance** should be evaluated for two cases:

- Additional mitigation measures are not required or cannot be done – in this case the impact is assessed taking into account all decisions and measures planned/embedded as part of the Project design;
- Additional mitigation measures are agreed in consultation with the Company – impact is assessed taking into account the applicable specific additional mitigation measures.

Table 3.2-9 provide a brief generalized characteristics of significance categories for social and socioeconomic recipients and human health.

Significance of the impact on social receptors may depend not only on objective indicators of the Project, but also on the subjective (public, group or personal) factors, such as:

- Variety of possible reactions of individuals who form the group / local community / population;
- Biased opinion or subjective perception of modern living conditions or potential impacts and their effects;

¹. In case of a positive impact, it is generally recommended to define a significance indicator unless there is a sufficient data base for more accurate characterization of impacts. Usually it is sufficient to indicate that the Project will have a positive effect and there is no need to indicate the degree of positive changes.

- Different vulnerability of certain categories of the local population to certain types of impacts (age, sex differences, economic viability, level of education, etc.).

Thus, evaluation of Impact Significance described below, should be based on the experience of the Consultant in social assessments, experience of work in the Project area, as well as a careful study of the socio-economic conditions in the Project area.

Table 3.2-8 *Evaluation of Impact Significance on Social and Socioeconomic Receptors*

Significance of Impact	Description
Negligible	Impacts practically do not change the social baseline conditions, local in extent and temporary or short-term in duration; impacts do not adversely affect the local community.
Minor	Short-term inconveniences caused by Project implementation, but with no consequences to long-term change of livelihood or quality of life. Receptors either easily in part adapt to changes or proceed with previous livelihood.
Moderate	Direct and indirect impacts on livelihood and quality of life of the local community. Receptors may undergo some difficulties to adapt to changes and they will be able to return to their former livelihood under condition of some support (for instance, compensation or involuntary economic resettlement).
Major	Widely spread direct and indirect impacts which practically can not be mitigated or compensated. Affected receptors are not able to adapt to changes or proceed with previous livelihood.

Table 3.2-9 *Evaluation of Significance of Impact on Human Health*

Significance of Impact	Description
Negligible	Diseases that do not require special treatment, do not go beyond the baseline conditions according to statistics, or limited, temporary impact on public health, when the treatment does not cause difficulties for local practitioners and medical institutions
Minor	Widespread short-term or limited medium-term impacts, which, nevertheless, can be eliminated, diseases can be treated, and do not cause permanent harm to human health
Moderate	Medium-term or localized long-term impacts that cause permanent negative, but not a fatal effect
Major	Widespread, long-term, irreversible changes in the regional population and groups of communities of the higher level population's health status

Significance of impacts on human health also depends on individual reactions.

Criteria for Acceptability of Impacts and Mitigation

The SIA process ensures identification of potentially significant impacts of the Project on the society for the purpose of their further consideration when making decisions pertaining to the Project.

A vital step within the process is the identification of **measures that will be taken to mitigate impacts**. In some instances mitigation measures are already proposed in design documents and in others required mitigation measures will have to be identified during the SIA process. The on-going SIA process involve identification of potential impacts for which the Project team develops technically and financially feasible and cost-effective measures for mitigation of these impacts to levels that are deemed acceptable. These measures are agreed upon with Project designers and integrated into Project proposals and the Social Management Plan (SMP) as clear unambiguous commitments.

Where a significant impact is identified, a hierarchy of options for mitigation is usually considered as follows:

- **Prevention/reduce at a source** – elimination of the impact source or mitigation of the impact in accordance with design solutions;
- **Abate on Site** – abating the impact through monitoring measures;
- **Abate at Receptor** – abating the impact through monitoring measures at receptor;
- **Remediation** – elimination of consequences through remediation measures;
- **Compensation in kind/compensate through other means** – compensation for loss, damage or disturbance in case when other approaches are either impossible or ineffective.

Compensation/offset as an impact mitigation measure is typically seen as a last resort in the SIA. Compensation may be required under the national legislation (sometimes independent of the significance of an impact) that is normal practice internationally, for instance, to compensate a farmer for loss of crops in the pipeline right-of-way. At that, compensation or offset does not automatically make an impact 'acceptable' or excuse the need to consider other forms of mitigation as discussed in the relevant hierarchy.

4.1

ADMINISTRATIVE STRUCTURE

The P80 section proposed for reconstruction crosses Minsk and Smolevichi districts of Minsk Region (Figure 4.1-1).



Figure 4.1-1

Administrative structure of the Project implementation area

The P80 Motorway is an important transport link for the local communities as well as for transit cargo through the territory of the Republic of Belarus.

4.2

POPULATION SETTLEMENT PATTERN

The capital of the Republic of Belarus is Minsk, which is also the administrative centre of Minsk Region and Minsk District. The District is situated in the middle of both Minsk Region and the Republic of Belarus. It borders on Vileyka, Logoyisk, Molodechno districts in the north; Volozhin District in the west; Dzerzhinsk District in the south-west, Pukhovichsky and Uzda districts in the south, Cherven District in the south-west and Smolevichi District in the east. All of them are districts of Minsk Region.

Smolevichi District is located in the northeast of the central part of Minsk Region. It borders on Logoysk and Borisov districts in the north, Cherven District in the southeast and Minsk District in the west. All of them are districts of Minsk Region.

Minsk District is administratively divided into 18 rural and 1 settlement councils, whereas Smolevichi District is comprised of 9 rural councils.

According to the National Committee on Statistics of the Republic of Belarus, the population of Minsk and Smolevichi districts as of 1 January 2017 equalled 208.8 and 45.8 thousand inhabitants respectively.

In line with the Government Program for Restoration and Development of Rural Communities for the period of 2005 until 2010, a network of agro towns as core rural settlements was created in both districts.

The P80 Motorway is a road of national significance providing transport linkages for the city of Minsk and the nearest settlements of Minsk Region. The km 0.000 – km 14.770 section of the P80 Motorway Sloboda – Papernya is the most important transport link for 27 settlements with the total population of 7,085 people.

The road passes a number of settlements (Figure 4.1-1):

- In Minsk District:
 - Ostroshitsky Gorodok (2,800 inhabitants);
 - Belye Luzhi (22 inhabitants);
 - Raubichi (483 inhabitants);
 - Okolitsa (with 538 inhabitants living in the village and 819 in the military town near a military installation), *this settlement is divided by the road into two parts; and*
- In Smolevichi District:
 - Baguta (53 inhabitants),
 - Sosnovaya (308 inhabitants),
 - Sloboda (2,882 inhabitants), and
 - Tavalga dachas¹.

Major functional types of the above settlements are listed in Table 4.2-1.

Table 4.2-1 *Types of settlements located within the direct Project influence area*

Settlement	Functional type of settlement
Ostroshitsky Gorodok	Industry and service multifunctional settlement with developed public services
Okolitsa	Agricultural settlement with undeveloped public services
Raubichi	Recreational settlement with concentration of non-agricultural businesses
Belye Luzhi	Agricultural settlement with undeveloped public services

¹ Translator's note. 'Dacha' is an allotment with a cottage normally near a large city used for leisure and growing garden crops

Settlement	Functional type of settlement
Sloboda	Industrial and agricultural, agro industrial and agricultural settlement with developed public services
Sosnovaya	Recreational and agricultural settlement with undeveloped public services
Baguta	Agricultural settlement with undeveloped public services

4.3

DEMOGRAPHY

Minsk District is distinguished by a favourable demographic situation with stable population growth since 2006 (Figure 4.3-1), accompanied by growing birth rate and falling death rate. The population of Smolevichi District is more stable. However, the past years witnessed a small population growth.

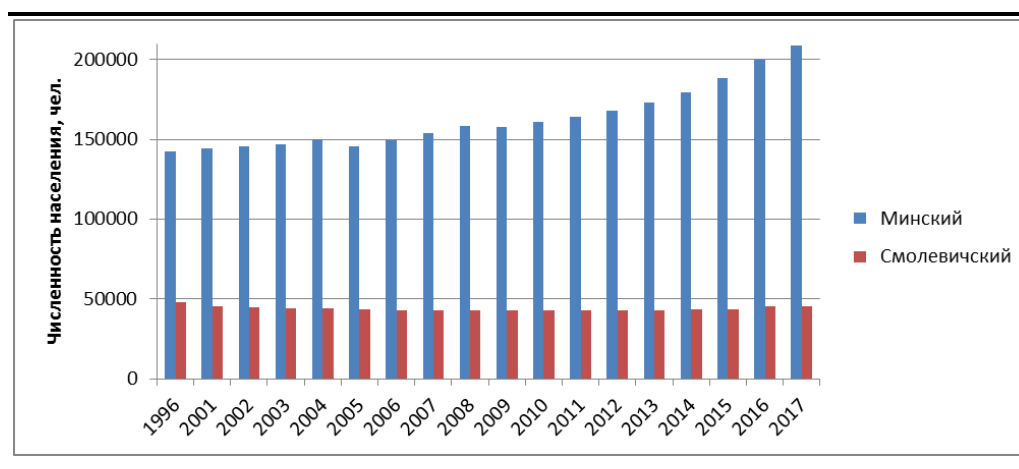


Figure 4.3-1 *Population Trends in Minsk and Smolevichi districts between 1996 and 2017*

Urban and rural population figures are shown in the table below (Table 4.3-1). Urban and rural population increased in Minsk and Smolevichi districts between 2011 and 2016 with most intensive growth in rural settlements of Minsk District. The proportion of women and men in the population of Minsk District is 53.1% and 46.9% respectively.

Table 4.3-1 *Urban and rural population in Minsk and Smolevichi districts in 2016*

District	Total population	Urban population	Rural population	Urban population in per cent	Rural population in per cent
Minsk District	200,115	23,466	173,646	11.7	86.8
Smolevichi District	45,308	17,663	27,645	39.0	61.0

The demography of Minsk District substantially differs from other districts of the country. The district is characterized by a stable rate of natural increase supported by a positive migration rate (Table 4.3-2). Smolevichi District is characterised by negative dynamics of natural change, which is compensated by positive net migration rate.

Table 4.3-2 *Rates of natural increase/loss in Minsk and Smolevichi districts between 2011 and 2016, ‰*

District	Total rates, ‰	2011	2012	2013	2014	2015	2016
Minsk District	Birth rate	15.9	17	16.5	16	16.9	15.8
	Death rate	12	10.8	10.3	9.4	9.6	8.9
	Rate of natural increase	3.9	6.2	6.2	6.6	7.3	6.9
	Net migration rate	17.8	18.5	21.4	29.3	42.1	52.1
Smolevichi District	Birth rate	13.7	14.9	14.9	14.1	15	14.1
	Death rate	17.6	15.4	14.9	13.5	13.4	14.2
	Rate of natural increase	-3.9	-0.5	0	0.6	1.6	-0.1
	Net migration rate	4.3	1.4	9.4	7.1	7.4	30.3

The demography of settlements located in the immediate vicinity of the P80 section proposed for reconstruction is detailed in Table 4.3-3.

Table 4.3-3 *Rates of natural increase and net migration rates in 2016 within the direct Project influence area*

Settlement	Rate of natural increase (loss)			Net migration rate		
	Number of people born	Number of people deceased	Rate of natural increase (loss)	Number of immigrants	Number of emigrants	Net migration rate
Minsk District						
Ostroshitsky Gorodok	23	49	-26	372	151	221
Belye Luzhi	0	0	0	1	0	1
Okolitsa	4	2	2	21	21	0
Raubichi	2	0	2	56	44	12
Smolevichi District						
Sloboda	38	9	29	105	133	-28
Bahuta	1	1	0	4	2	2
Sosnovaya	3	2	1	52	18	34

Rural settlements within the Project influence area are characterized by a high proportion of the working-age population (Table 4.3-4). The only exception is Ostroshitsky Gorodok, where the proportion of people older than the working-age population reaches 30%. Settlements of Smolevichi District have a higher proportion of children.

Table 4.3-4 *Population and age structure within the direct Project influence area as of 1 January 2017*

Districts and	Total	Proportion of people (in per cent)
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settlements	population	younger than the working-age population	Working-age population *	older than the working-age population
Minsk District				
Ostroshitsky Gorodok	2,800	11	59	30
Okolitsa	538	14	67	19
Raubichi	483	13	63	24
Belye Luzhi	22	16	57	27
Smolevichi District				
Sloboda	2,882	26	60	14
Sosnovaya	308	21	55	25
Baguta	53	24	59	17

** In accordance with labour regulations of the Republic of Belarus, the working age of men is from 16 to 59 and women from 16 to 54.*

Minsk and Smolevichi districts are mono-national areas as the entire Minsk Region and are characterised by a single dominant ethnic group. **No indigenous peoples live in Minsk and Smolevichi districts and they will not be affected by the proposed Project activities.**

4.4 ECONOMY

The Project implementation area is located in the suburban zone of the city of Minsk and is a key area in the territorial structure of the Minsk agglomeration. According to the integrated map of the territorial structure of the Minsk suburban zone, the subject area is categorized as the area reserved for the development of the country's capital city. Its social and economic development is aimed at:

- establishment and development of environmentally safe small and medium-sized businesses linked with the economy of Minsk;
- active development of the recreation and entertainment sector, concentration of trade and trade infrastructure;
- development of highly intensive agriculture with focus on poultry farming, pig-breeding, dairy cattle breeding and vegetable growing with developed potato farming;
- development of the recreation sector focused on short time rest (1 to 3 days) with an expansion of the associated commercial services; and
- development of multimodal transport and logistic complexes with expanded production.

4.4.1 Industry

The industry of Minsk and Smolevichi districts has well developed structure with enterprises of different economic activities and different levels of

specialization, including producing export-oriented products. As for the 7 considered settlements, there are 5 enterprises located in agro-settlements.

The following enterprises are located in Sloboda of Smolevichi District:

- ZAO Istela Rosa CJSC, a manufacturer of flavoring compositions and food concentrates for drinks, confectionery and gastronomic products for the food industry (stabilizers, kvass concentrates, sauces, ketchup, mayonnaise, natural food colors, etc.) as well as feed additives and concentrates for the agricultural sector;
- OOO Salatoria, a producer of fresh ready-to-eat salads; and
- OOO Svetlana, a producer of concrete, masonry mortar and lime plaster, lessor of concrete pumps and concrete pumper trucks.

The following industrial enterprises are located in Minsk District in the immediate vicinity of the P80 section proposed for reconstruction:

- UE Tetraedr production and warehousing facility in Ostroshitsky Gorodok, a research and production enterprise specializing in development and manufacture of hardware and software used in radar and radio electronic control assets, including weapon systems; and
- Production facility of AMTEngineering Ltd. rented by OOO Engineering Center AMTEngineering in Ostroshitsky Gorodok. OOO Engineering Center AMTEngineering is a designer and manufacturer of metal-working equipment.

4.4.2 Agriculture

Two agricultural enterprises are located adjacent to the P80 section proposed for reconstruction: PUE “Ozeritsky-Agro” in Smolevichi District and JSC “Pervaya Minskaya Ptitsefabrika” (a subsidiary of Ostroshitsky Gorodok agricultural enterprise) in Minsk District. Key performance indicators of these agricultural enterprises are shown Table 4.4-1.

Table 4.4-1 *Key performance indicators of PUE Ozeritsky-Agro and JSC Pervaya Minskaya Ptitsefabrika, a subsidiary of Ostroshitsky Gorodok agricultural enterprise, in 2016*

Performance indicators	PUE Ozeritsky-Agro	JSC Pervaya Minskaya Ptitsefabrika, a subsidiary of Ostroshitsky Gorodok agricultural enterprise
Headcount	493	287
Number of tractors	56	29
Number of trucks	22	16
Number of busses	4	1
Area of farmlands, ha, including	8,211	4,609
plough lands, ha	7,000	4,000

Performance indicators	PUE Ozeritsky-Agro	JSC Pervaya Minskaya Ptitsefabrika, a subsidiary of Ostroshitsky Gorodok agricultural enterprise
meadows, ha	1,211	609
Gross croppage, including leguminous crops, t	14,825	6,780
Gross potato harvest, t	11,663	1,290
Gross vegetables harvest, t	3,733	-
Cattle stock	6,129	1,500
including cows	2,360	800
Milk yield per cow, kg	7,714	5,890
Cargo carriage (freight) volume during the year, thousand tons (according to specialists of the companies)	over 400	over 400

4.4.3 *Trade and services sector*

Twenty-five trade businesses are located in Ostroshitsky Gorodok, including 17 shops, warehouses and a pharmacy. Catering facilities include two canteens in educational institutions.

A sports centre is located in Raubichi. The village has also canteen, a lunchroom and bar in the training centre of the National Bank of the Republic of Belarus, one shop, one small café and two cafés in hotels of the Raubichi sports centre. One café ('Oasis') is located near the entrance of the sports centre at km 12 of P80.

Four shops and several warehouses are located in Okolitsa.

Sloboda has 7 retail shops, 2 wholesale stores, 4 pavilions (one of them at the halt platform of the railway) and one kiosk.

In Sosnovaya, one café is located in the Sosnovaya recreation camp of PUE Ozeritsky-Agro.

4.5 *LABOUR MARKET AND HOUSEHOLD INCOMES*

Labour resources and labour market of Mink and Smolevichi districts are influenced by the following factors:

- inclusion of the subject districts in the suburban zone of the city of Minsk and the Minsk agglomeration; and
- location of several production and social facilities of national significance in these districts (for instance, the Minsk national airport managed by Minsk authorities and the Raubichi Olympic training centre for winter sports).

Another factor of influence is a circular migration between urban and rural settlements of the districts and between the districts and the city of Minsk. A geographical proximity of the capital's labour market of high capacity, payroll rates, dynamism, diversity of jobs and a high level of the public transport development within the Minsk agglomeration evokes active daily movements of labour resources.

Besides, in the warm season, a part of Minsk inhabitants prefer to live in country houses located in gardening partnerships and dacha communities, which results in seasonal increases of the circular migration.

Labour resources of Minsk District are about 140 thousand people. Over 50 thousand people in the district are migrant employees.

Businesses of the non-productive sector are major employers in the district in general and in rural settlements in particular with the share of trade and services of about 60%. About 25% of the total number of the district's working people is employed in industry, 9% in construction and about 6% in agriculture and forestry.

Labour resources of Smolevichi District are about 65 thousand people. About one thousand of the district's inhabitants are employed by enterprises and organizations of the city of Minsk and Minsk District, which accounts for approximately 1.5% of the district's total employment.

The productive sector dominates in the district's total employment with a share of about 60%, of which 55% of people work in cities and towns and 70% in rural areas. Agriculture is the basis of employment in rural areas. Its share in total employment is about 42. The non-productive sector includes transport and communications (about 30 % of total employment), education (18 %), trade and repair services (15 %), healthcare and social services (10 %).

In late 2016, the number of the registered unemployed in Minsk District accounted for 252 people or 0.2% of the economically active population (against 0.3% in 2015), which is lower than the Region's average (0.7%). In Smolevichi District, 79 people were registered as unemployed in late 2016, which accounts for 0.3% of the economically active population (against 0.7% in 2015).

The average monthly wage is a major indicator reflecting household incomes. In 2016 in Minsk District it amounted to 890 Belarusian roubles, which corresponds to about USD 460 (123 % of the Regions' average), and in Smolevichi District 727 Belarusian roubles or USD 375 (about 100% of the Region's average). The real wages in percent to the last year in both districts decreased by about 4%.

The level of employment in settlements located in the immediate vicinity of the P80 Motorway is partly supported by labour migrations to the Minsk agglomeration and partly by local enterprises and organisations. Table 4.5-1 below contains a list of such enterprises with a headcount of over 50 people.

Table 4.5-1 *Major employers in settlements located close to the road (enterprises and organisations with a headcount of over 50 people)*

Settlement	Enterprise
<i>Ostroshitsky Gorodok</i>	<p>DEU-5 (road maintenance service)</p> <p>Secondary school of Ostroshitsky Gorodok</p> <p>UE Tetraedr production and warehousing facility, a research and production enterprise specializing in development and manufacture of hardware and software used in radar and radio electronic control assets, including weapon systems</p> <p>OOO Engineering Center AMTEngineering, a designer and manufacturer of metal-working equipment</p> <p>Children's hospital of medical rehabilitation (180 employees)</p> <p>JSC Pervaya Minskaya Ptitsefabrika, a subsidiary of Ostroshitsky Gorodok agricultural enterprise</p> <p>Psychoneurologic boarding school No. 1 (439 employees + 100 new jobs are expected)</p>
<i>Okolitsa</i>	Military post 3310
<i>Raubichi</i>	<p>Raubichi Olympic training centre for winter sports.</p> <p>Training centre of the National Bank of the Republic of Belarus</p>
<i>Sloboda</i>	<p>Secondary school of Ozeritskaya Sloboda</p> <p>PUE Ozeritsky-Agro</p> <p>JSC Smolevichi Broyler (poultry farm)</p>
<i>Sosnovaya</i>	Sosnovaya recreation camp

Household plots and the use of ecosystem services are very important for household incomes. Household plots in rural settlements are attached to houses (kitchen gardens, orchards, livestock, etc.). Household budgets are sometimes appreciably enlarged by incomes derived from ecosystem services: gathering of mushrooms, berries and other wild plants, fishing, etc.

The proposed P80 reconstruction, including the construction of new driveways and viaducts, will not affect ecosystem services. Therefore, the Project impact on ecosystem services is not assessed.

4.6 HEALTHCARE

4.6.1 Public health

The overall morbidity level in Minsk region tends to grow as in the country in general. In 2016, the number of new cases per 100,000 people amounted to

79,747.1, which is 1.6 % higher than 5 years ago but 4.2% lower than the country's average.

Divergent trends can be observed in some groups of diseases. Morbidity rates dropped in the following groups of diseases in 5 years:

- infectious and parasitic diseases (94.6% against 2012);
- mental and behavioural disorders (91.9%);
- diseases of the central nervous system (92.4%),
- diseases of the musculoskeletal system and connective tissue (94.1%);
- congenital anomalies, deformities and chromosomal alterations (96.4%);
- injuries, poisoning and some other consequences of external causes (96.9%).

Morbidity rates are growing in all other groups of diseases, especially in the following five groups:

- endocrine, nutrition and metabolic disorders (132.2% against 2012);
- diseases of the eye and adnexa (119.3%);
- diseases of the circulatory system (116.9%);
- ear and mastoid process diseases (114.7%);
- neoplasms (109.3%).

Respiratory diseases are characterized by the highest morbidity rates. In 2016, the number of reported cases was 40,036.7 per 100,000 people, which is somewhat lower than the country's average (43,297.5). Injuries, poisoning and some other consequences of external causes rank second: 7,264.3 reported cases per 100,000 people, which is also slightly lower than the country's average. Diseases of the skin and subcutaneous tissue rank third: 4,820.0 reported cases, which is 16% higher than the country's average. Diseases of the musculoskeletal system and connective tissue rank fourth: 4,537.5 reported cases, which is also appreciably higher than the country's average. Diseases of the circulatory system rank fifth and exceed the average level by 18%.

Influenza and acute upper respiratory infections rank first among infectious diseases. Acute intestinal infections rank second.

More than 40 thousand people in the region are registered as patients with malignant diseases and over 940 people as having active tuberculosis. Over 12 thousand people are followed up in T.B. prophylactic centers as patients with active tuberculosis and about 28 thousand people are followed up in healthcare institutions as patients suffering from alcoholism and alcoholic psychosis.

The number of people at the age of 18 and over for the first time recognized as disabled persons increased 1.3 times in 5 years and amounted in Minsk Region to 8,681, of them 4,351 are women (50.1% of the total number). Among able-bodied people 3,369 persons were for the first time recognized as disabled persons, of them 963 are women (28.6%).

Diseases of the circulatory system are the leading causes of death. In 2016, in Minsk and Smolevichi districts as well as in Minsk Region every second death of the total mortality was caused by these diseases: 57.4%, 56.9% and 55.0% respectively. Similar situation can be observed in rural areas. The second biggest mortality rate is attributable to neoplasms. Their proportion in the total mortality in Minsk District is 17.4 % and in Smolevichi District 12.3% compared to the Region's average of 13.4%. The third biggest mortality rate is attributable to external causes: 7% to 8% of the total mortality in 2016 in the subject areas.

4.6.2 *Healthcare infrastructure*

There is a branched network of healthcare institutions of different levels in Minsk and Smolevichi districts, which constitute the basis of the local healthcare infrastructure. The main healthcare institutions in the subject districts are central district hospitals comprising outpatient clinics, dental departments, maternity hospitals, specialized clinics as well as rural district hospitals and paramedic-midwife stations providing medical services in rural areas and medical stations in enterprises.

Key indicators of the availability of medical services are listed in Table 4.6-1.

Table 4.6-1 *Indicators of the availability of medical services in Minsk and Smolevichi districts in 2016*

Area	Number of practitioners per 10,000 inhabitants	Number of the middle medical workers per 10,000 inhabitants	Number of beds per 10,000 inhabitants
<i>Republic of Belarus</i>	39.8	119.9	80.5
<i>Minsk Region</i>	30.6	108.7	83.6
Minsk District	52.0	122.1	121.5
Smolevichi District	14.2	55.9	65.9

The Minsk central district hospital includes the outpatient clinic in Ostroshitsky Gorodok, which provides medical services for the inhabitants of Ostroshitsky Gorodok, Raubichi and Belye Luzhi.

Emergency aid is provided by a first-aid station located in Borovlyany with an affiliated station in Senitsa and aid posts in Zaslavl, Kolodischi and Gatovo.

Another healthcare institution in Ostroshitsky Gorodok is the children's hospital of medical rehabilitation located near the Usyazha Lake.

The Smolevichi central district hospital comprises an outpatient clinic in Ozeritskaya Sloboda, which also provides medical services for the inhabitants of Sosnovaya. Medical services for the inhabitants of Baguta are provided by the outpatient clinic in Prilepy.

Medical institutions in the area governed by the Ostroshitsky Gorodok Rural Council can be accessed by the local communities via the P80 Motorway. The inhabitants of Baguta can reach Prilepy by local roads crossing the P80 Motorway. Sloboda can be accessed by the inhabitants of Sosnovaya via the P80 Motorway or via local roads.

4.7 SOCIAL INFRASTRUCTURE

4.7.1 Education

The education system in the Republic of Belarus is divided into four basic stages:

- pre-school education (nurseries, kindergartens);
- general basic education (required for children from the ages of six until fifteen and lasts for 9 years);
- general secondary education (completion of 11 years of school), elementary vocational education (vocational schools, lyceums) and specialized secondary education (technical schools, colleges);
- higher education.

The following educational institutions are located in the area governed by the Ostroshitsky Gorodok Rural Council:

- Secondary school of Ostroshitsky Gorodok;
- Nursery and kindergarten of Ostroshitsky Gorodok; and
- Interschool vocational training center in Ostroshitsky Gorodok.

Schoolchildren living in Raubichi and Belye Luzhi are brought to the secondary school of Ostroshitsky Gorodok by school bus. The school is 1.4 km away from the P80 Motorway.

The following educational institutions are located in the area governed by the Ozeritskaya Sloboda Rural Council:

- Secondary school of Ozeritskaya Sloboda;
- Kindergarten of Ozeritskaya Sloboda; and
- Combined kindergarten and secondary school of Prilepy.

The secondary school of Ozeritskaya Sloboda is attended by schoolchildren from the 17 nearest villages of Minsk and Smolevichi districts. The school is 1.2 km away from the P80 Motorway. Schoolchildren also attend biathlon and football training courses delivered by a branch of the specialized Olympic reserve junior sports school of the Smolevichi District Executive Committee.

Children are brought to educational institute by school busses, which also drive along the P80 Motorway. The premises of both institutions are fenced with no direct access to the P80 Motorway.

The premises of kindergartens located in Ostroshitsky Gorodok and Sloboda have no access to the P80 section proposed for reconstruction (kindergartens are located 1.2 km and 1.9 km away from the Motorway respectively).

4.7.2 *Sports*

The largest sports facilities of national significance are located in Minsk District:

- Olympic training centre for equestrian sports and horse-breeding in Ratomka,
- Olympic reserve training centre for equestrian sports of Minsk Region in Urozhainaya,
- Staiki Olympic sports center in Yelnitsa,
- Olympic training centre for winter sports in Raubichi,
- Sailing training centre in Kachino,
- Gritsevets central flying club in Borovaya,
- Rowing basin of the national sports mastery school in Zaslavl.

A golf club was established near Kolodischi in 2001.

In Smolevichi District, the majority of sports facilities are located in secondary schools and include gyms, sports grounds, playgrounds as well as numerous recreational and fitness facilities. Large specialized and smaller sports facilities are located primarily in the capital of the district and in Zhodino, a city of region subordination.

The Olympic training centre for winter sports in Raubichi is the only sports facility with access from P80. It is a sports facility of national significance rendering a wide range of high level services, including hosting of international competitions in winter sports.

4.7.3 *Culture*

Minsk District is host to numerous culture institutions. In 2016, they numbered 37 social activities clubs comprising various hobby clubs and numerous amateur teams. Twenty-seven libraries are open in Minsk District.

There is a rural cultural centre and a library in Ostroshitsky Gorodok. A Byelorussian folk arts museum is located in Raubichi.

Culture institutions of Smolevichi District include the urban and rural cultural centres, libraries, cinemas, museums and etc. Culture institutions of Smolevichi District include the Urban Cultural Centre of Smolevichi, a central

district library and a children's library, the Ordzhonikidzevskaya affiliated library, a museum, a motor club, a cinema and the District Handicrafts Centre in Smolevichi

One library is located in Sloboda.

4.8

PUBLIC UTILITIES

Public utilities are provided to rural communities in the subject area by two unitary public utility companies located in Minsk and Smolevichi districts respectively. The public utilities infrastructure in settlements located near the P80 section proposed for reconstruction is described in Table 4.8-1.

Table 4.8-1 *Public utilities infrastructure in settlements of Minsk and Smolevichi districts located near auto road P80*

Rural settlement	Water	Sewage	Electricity	Heating	Natural gas
Minsk District					
Ostroshitsky Gorodok	Centralized water supply prevails (80%)	Centralized sewage system encompassing about 60% of households	All housing facilities are provided with electricity	Centralized heating prevails (60% of households)	60% of households are supplied with natural gas. About 30% of households use liquefied natural gas.
Raubichi	Autonomous water supply prevails where water is drawn from dug wells or extracted from artesian wells	Centralized sewage system is not available. Decentralized system encompasses about 80% of households	All housing facilities are provided with electricity	Individual heating. Stove heating prevails (100% of households), stove heating is preserved in households supplied with natural gas	60% of households are supplied with natural gas. About 20% of households use liquefied natural gas.
Belye Luzhi	Autonomous water supply prevails where water is drawn from dug wells	Sewage system is not available.	All housing facilities are provided with electricity	Individual heating. Stove heating prevails (100% of households)	About 80% of households use liquefied natural gas.
Okolitsa	Autonomous water supply prevails where water is drawn from dug wells	Centralized sewage system is not available. Decentralized system encompasses about 80% of households	All housing facilities are provided with electricity	Individual heating. Stove heating prevails (100% of households), stove heating is preserved in households supplied with natural gas	About 80% of households use liquefied natural gas.
Smolevichi District					
Sloboda	Centralized water supply appeared in 1970 and encompasses 80% of households	Centralized sewage system was built in 1982 and encompasses 40% of households. Decentralized system encompasses about	All housing facilities are provided with electricity	Centralized heating encompasses 40% of households. Stove heating prevails (30% of households), stove heating is preserved in	60% of households are supplied with natural gas. About 30% of households use liquefied

Rural settlement	Water	Sewage	Electricity	Heating	Natural gas
		50% of households		households supplied with natural gas	natural gas.
Sosnovaya	Autonomous water supply prevails where water is drawn from dug wells	Centralized sewage system is not available. Decentralized system encompasses about 50% of households	All housing facilities are provided with electricity	Stove heating prevails	30% of households are supplied with natural gas. About 40% of households use liquefied natural gas.
Baguta	Autonomous water supply prevails where water is drawn from dug wells	Centralized sewage system is not available. Decentralized system encompasses about 60% of households	All housing facilities are provided with electricity	Individual heating. Stove heating prevails (96% of households), stove heating is preserved in households supplied with natural gas	60% of households are supplied with natural gas. About 30% of households use liquefied natural gas.

4.9.1

Road system

Minsk and Smolevichi districts have a developed motorway and railway network, which provides good passenger traffic. Road system within the Project area is presented below Figure 4.9-1.



Figure 4.9-1 *Road system within the Project area*

The motorway network in Smolevichi District within the Project implementation area comprises:

- national-level motorways:
 - M2 Minsk – Minsk National Airport;
 - P53 Sloboda - Novosady;
 - P80 Sloboda - Papernya;
- local motorways:
 - H9539 Usyazha – Zadomlya - Sloboda;
 - H9540 Prilepy - Lyady;
 - H9598 Zadomlya - Boguta;

The motorway network in Minsk District within the Project implementation area comprises:

- national-level motorways:
 - M3 Minsk - Vitebsk;
 - M14 Second ring road around the city of Minsk;
 - P40 Borovlyany - Logoisk;
 - P80 Sloboda - Papernya;
 - Access road from P80 to Uzborye;
 - Access road from P80 to Okolitsa;

- local motorways:
 - H9059 Okolitsa – Raubichi – Krestinovo;
 - Entrance from P80 to the village of Uzorgorye.

4.9.2

Buses

Because the P80 Motorway passes in the immediate vicinity of settlements and the Raubichi sports centre, the subject road section is intensively used by public transport (12 to 86 trips per day).

Passenger transport services are provided:

- in Smolevichi District:
 - by the Bus Depot No. 18 (Zhodino), a subsidiary of JSC Minoblavtotrans: 29 trips Smolevichi – Minsk - Smolevichi,
- in Minsk District by subsidiaries of GUP Minsktrans (Minsk):
 - Bus Depot No. 4: 20 trips Minsk – Smolevichi - Minsk, and
 - Bus Depot No. 5: 21 trips Minsk – Smolevichi – Minsk.

The P80 section proposed for reconstruction is used by minivans of OOO Evrovisa driving through Sloboda of Smolevichi District:

- Route No. 469-TK 'Minsk – Oreshniki – Smolevichi – Plisa – Chernitsky' (15 vehicles per day in one direction);
- Route No. 470-TK 'Minsk – Dinarovka – Smolevichi' (80 vehicles per day in one direction).
- Route No. 463-TK 'Minsk – Goncharovka – Atlant-2 gardening partnership in Dubrovka (2 vehicles per day in one direction).

Passengers traveling between Minsk and Ostroshitsky Gorodok are transported in minivans by ODO Ekspresslinii (13 vehicles per day in one direction).

Passengers travelling between Raubichi and Minsk can use only buses provided by JSC Minobltrans and GUP Minstrans.

4.9.3

Traffic intensity

The existing traffic intensity on P80 varies from 4.3 thousand to 9.1 thousand vehicles per day (Figure 4.9-2). The prediction for the next 20 years is more than 12 thousand vehicles per day (Figure 4.9-3).

As indicated in Figure 4.9-2 below, the traffic flow is redistributed at intersections of P80 with local roads. This traffic redistribution is particularly heavy at the intersection in Okolitsa and at approaches to Sosnovaya and Zadomlya.

The traffic intensity at the intersection in Okolitsa is predominantly created by passenger cars which account for 94% of the traffic flow. The contribution by

trucks at approaches to Zadomlya and Sosnovaya is significantly greater: their proportion of the traffic flow is 14.5 and 25.3% respectively.

4.9.4

Telecommunications

There is a unique facility in Smolevichi District located near Yemelyanovo: a satellite communication station, the only one in Belarus and the CIS countries, which performs electronic communication with India, China, USA, Israel and several other countries.

The coverage area of all wireless carriers operating in Belarus encompasses the entire country's territory (100 %).

5330=3814+287+48+1181 - I число после знака '=' легковые автомобили,
 II число после знака '=' микроавтобусы,
 III число после знака '=' автобусы,
 IV число после знака '=' грузовые автомобили

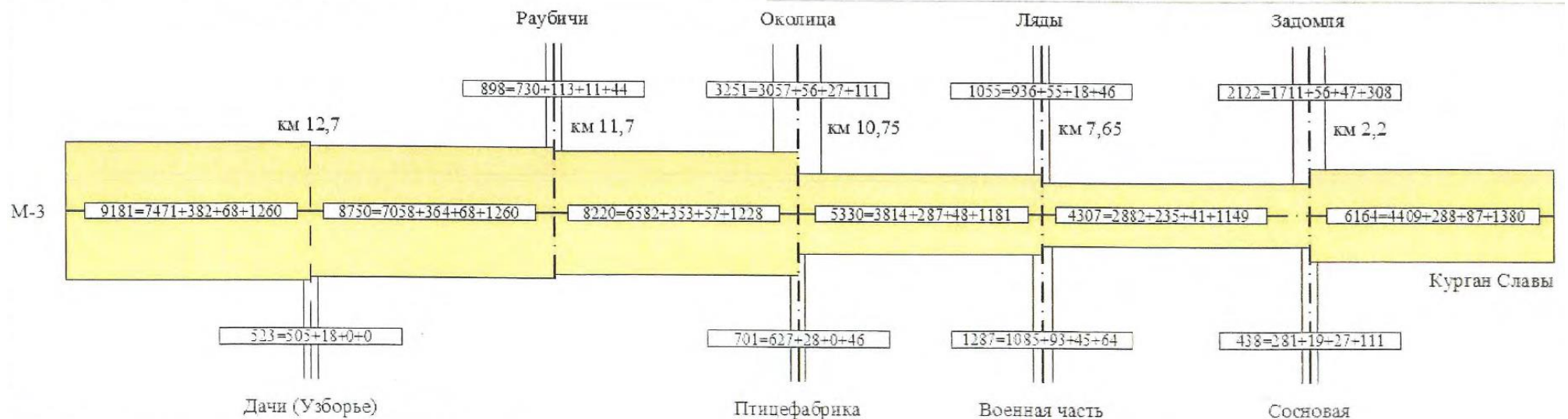


Figure 4.9-2 Intensity of traffic on the P80 Motorway section km 0.0 - km 14.7 between Sloboda and Papernya, vehicles per day in 2017

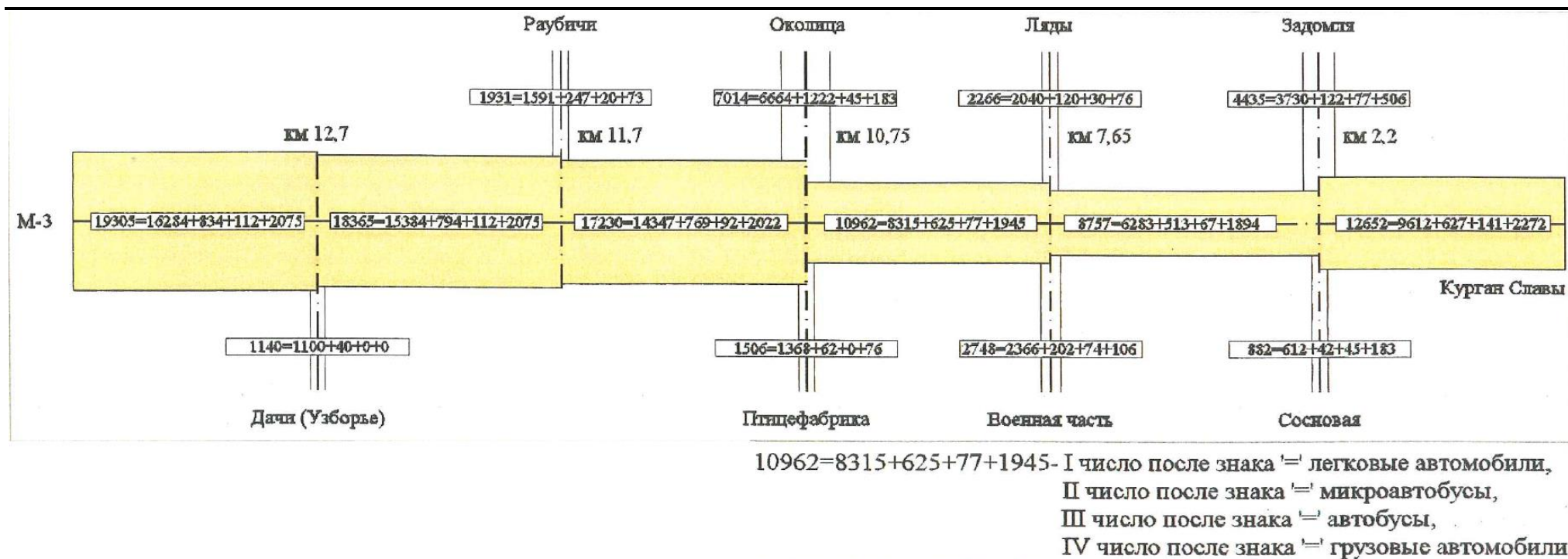


Figure 4.9-3 Predicted intensity of traffic on the P80 Motorway section km 0.0 – km 14.7 between Sloboda and Papernya, vehicles per day in 2040

4.10 *CULTURAL HERITAGE AND TOURISM*

4.10.1 *Cultural heritage*

Cultural and historical heritage sites are not affected by the proposed reconstruction of the P80 section. The nearest cultural heritage sites are:

- Burial Mound of Glory Memorial, a Second World War monument located in Smolevichi District at km 21 of the M2 Motorway Minsk – Minsk National Airport;
- St. Mathew's Church in Raubichi (which hosts a museum of Byelorussian folk arts); and
- A monument to soldiers of the World War II: tank T-34 and obelisk to the villagers of the underground fellows (14,7 km of the highway P-80)

Pursuant to the legislation of the Republic of Belarus, chance archaeological finds during excavation works must be reported to the Institute of History of the National Academy of Sciences of Belarus in order to arrange additional archaeological surveys.

4.10.2 *Recreation and tourism*

According to the General Map of Locations and Development of Recreation Areas in the Byelorussian SSR, the following areas are to be developed in Minsk Region:

- 2 resorts of national significance: Zhdanovichi and Naroch;
- 4 recreation areas of national significance: Berezino, Vileyka, Ivenets and Stolbtsy; and
- 50 recreation areas of local significance.

There are 10 travel agencies, 25 hotels and 18 recreational and healthcare institutions in Minsk District.

Tourist services are provided by 21 companies, including 7 sanatoriums (87% of all tourist services). These are, first of all, sanatoriums Yunost, Krinita, Belorusochka and Praleska.

The following recreation areas are located within the Project implementation area:

- Ostroshitskoye Water Reservoir,
- a pond in Okolitsa,
- Dubrovskoye Water Reservoir,
- Lake Zadomlya, and
- forests near settlements.

5.1 SETTLEMENT SYSTEM

The Project implementation will contribute to the improvement of transport links in Minsk and Smolevichi districts and in Minsk Region as a whole. Increased mobility of the population against the background of growing satellite towns/ residential suburbs may facilitate growth of settlements and 'dacha'¹⁹ condominiums.

This impact will be positive.

5.2 DEMOGRAPHY

Approximately 100 to 200 employees will be involved in construction. It is expected that the Project construction personnel will be accommodated in the City of Minsk and shuttled to/from the site by buses of Contractor. «Minskavtodor-Centr» will continue service of motorway on the stage of operation. Consequently, no migration inflow directly related to the Project is expected.

No potential impact on the local demography will occur during construction.

The Project implementation will facilitate the improvement of the transport infrastructure and potentially increase the mobility of the population. Taking into account the current development of satellite towns of Minsk, this may stimulate voluntary resettlement to the Project implementation area, increase labor migration (commuting) and holiday travels.

At the moment there is not enough information to assess the direction of this impact and its significance.

5.3 ECONOMY

5.3.1 Economic situation and investment opportunities

The economic impact of the Project during construction will consist of certain growth of building material production and construction work services in Minsk and Brest regions.

¹⁹ Translator's note: 'Dacha' is an allotment with a cottage usually located near a large city and used for leisure and growing garden crops

The reconstructed P80 Motorway will have better transportation and operation parameters which will make the Minsk and Smolevichi districts more attractive for investors.

Increased P80 traffic intensity can stimulate development of motorway services.

Potential impact on the economic situation and investment opportunities within the Project implementation area will be positive.

5.3.2 *Local industries*

Construction plans provide for involvement of local suppliers of building materials and constructions. These suppliers include industries located in the settlements of Minsk Region (Korolyov Stan, Zaslavl, and Fanipol) and Brest Region (Mikashевичi).

Local road building companies can also take part in the tender for the project construction works.

Potential impact on local industries during construction will be positive.

Increased traffic flow expected after the Project implementation may increase attendance and profits of Oasis Café, the only motorway services facility located within the affected motorway section.

Potential impacts on local motorway services will be positive.

Due to safety requirements for Category 1 roads multi-level flyovers will replace all at-grade intersections. Reconstruction of the existing at-grade intersections (crossings) and construction of viaducts will increase the travel distance for vehicles crossing the subject section of P80²⁰.

The Project implementation will result in increased transport expenses of companies and organisations located within the Project implementation area due to increased mileage of vehicles.

This impact is assessed in Section 6.3.1.

5.4 *LABOUR MARKET AND COMMUNITY INCOMES*

It is expected that the construction workers requirements for completion of one stage will not be greater than 200 workers. The Client plans to use construction contractors with sufficient workforce which are registered in Minsk region.

²⁰ Including the main crossing and the left-turn exits to local roads and entrances to the motorway that require left turns

Minskavtodor will operate the P80 Motorway before and after the reconstruction Project, i.e. no additional maintenance personnel will be required.

No direct impact on the labor market and community incomes will occur.

Indirect impacts may be associated with multiplier effects on the local economy and potential development of motorway services.

Potential indirect impact will be positive.

5.5

HEALTH AND SAFETY

During construction, potential impacts on the community health and safety may be caused by the increased of traffic on local roads associated with transportation of goods and materials for the P80 Motorway reconstruction.

Potential impact is assessed in Section 6.2.2.

During operation, potential impacts on the community health and safety will be associated with increased traffic via the P80 Motorway and within settlements due to construction of transport intersections.

Potential impact is assessed in Section 6.3.2.

5.6

SOCIAL INFRASTRUCTURE

It is expected that the Project construction personnel will be accommodated in Minsk. Consequently, no increased load on the social infrastructure facilities within the Project implementation area during is expected.

Social infrastructure facilities being located away from P80, no adverse impacts associated with construction operations and increased traffic are expected.

Since no additional workforce will be required during operation of the reconstructed motorway, no increase of the load on the social infrastructure facilities is expected.

No adverse impacts on social infrastructure will occur.

Improved transportation and operation characteristics of P80 will contribute to traffic and road safety, including safer transportation of children in school buses during the school year.

This impact will be positive.

Construction activities will include intervention/rearrangement of services (utility lines) within the area of construction works.

The Client (Company) will obtain technical specifications for the reconstruction of services. For the changes to major and technically complex services the Company will employ specialized contractors responsible for operation and maintenance of these services. Changes to minor service/utility lines will be made using own resources of the Company.

The load on communication will be additional energy consumption for illumination of the road – after the reconstruction the whole distance will be illuminated.

At the time of development of this report information on required additional energy consumption and its potential sources is unavailable

Potential impact on services and utilities may be assessed on the stage of Project Design Documentation development.

Impacts on the transport infrastructure during construction will be associated with transportation of goods for the Project. Increased loads on local roads may result in deterioration of the roadbed quality.

Assessment of impact on transport infrastructure during construction is provided in Section 6.2.1.

Potential impacts on the transport infrastructure during operation will relate to the reconstructed P80 section, new lanes and viaducts, and modernisation of local driveways in Okolitsa²¹.

The upgrading of P80 to Category 1 will:

- improve transportation and operation characteristics of the motorway;;
- increase traffic capacity;
- improve overall traffic safety and reduce the risk of accidents due to separation of traffic flows, construction of pedestrian subways, etc.

Potential impacts on transport infrastructure during operation will be positive.

²¹ No final decision on the junction in Okolitsa had been made at the time of this Report. The further assessment in accordance with based on the option which involves passage via Lugovaya, Solnechnaya and Tsentralnaya streets.

5.9 CULTURAL HERITAGE

According to available information, the Project implementation will not affect the existing (identified) tangible cultural heritage.

Construction works may uncover chance finds which may be classified as tangible cultural/archaeological heritage.

In accordance with the national legislation chance archaeological finds discovered during excavation works must be reported to the Institute of National History under the National Academy of Sciences in order to mobilize additional archaeological survey.

No adverse impacts on tangible cultural heritage are expected to occur during implementation of the Project.

5.10 LAND USERS

Construction of new driveways and viaducts will require acquisition of land plots adjacent to the motorway and owned by individuals and organizations.

Potential impacts on land users are evaluated in Section 6.1.1.

5.11 ECOSYSTEM SERVICES

Reconstruction of road R-80, including the construction of new roads and overpasses, will not impact on ecosystem services, because ecosystem services are not used by local communities within the land acquisition plot.

In this regard, the impact of the Project on ecosystem services is not assessed.

5.12 QUALITY AND STANDARDS OF LIVING

The Project implementation may result in some adverse impacts which will have a combined effect on the quality and standards of living of the local community. These effects will include:

- Increased air pollution, noise levels, and dust generation at the proposed intersections near residential areas and associated health and safety risks;

Available data on air and noise pollution and dust generation are not sufficient for quantitative assessment of impact of these factors on life quality of the affected communities. This impact is reviewed based on the predicted increase in traffic intensity. Respective impact assessment is provided in Section 6.3.2.

- Deterioration of landscape visual properties.
- Increased transport expenses of local residents due to greater travel distances when crossing P80.

- Segmentation of settlements and interconnection of areas due to the median strip along the entire length of P80 and prohibition of road crossing outside of specially designated and equipped pedestrian walkways.

Impacts associated with deterioration of landscape visual properties, increased travel expenses for the community and disruption of interconnections within settlements are assessed in Section 6.3.3.

6.1 PREPARATION STAGE

6.1.1 Impact on land users

Project impact directions

Impact on land users: private person

According to the design as of July 2017, reconstruction of the motorway and construction of intersections will require acquisition of private land plots.²²

One privately owned (by a physical person) plot will be required for the construction of an under-crossing of P80 in Okolitsa (Figure 6.1-1).



Figure 6.1-1 *Land plot in Okolitsa required for the under-crossing construction*

The impact characteristics and assessment of impact magnitude are reported in Table 6.1-1 below.

²² Public consultations resulted in a decision to re-design the intersection in Okolitsa. On August 3 the client disclosed an alternative proposal for the intersection that must be discussed with the residents of Okolitsa.

Table 6.1-1 *Details of impact on land users: physical persons (individuals)*

Criterion	Characteristics	Explanation
Duration	Permanent	If the viaduct is to be built in Okolitsa, the privately owned land plot will be acquired on a permanent basis.
Frequency	Single	-
Extent	Site	One plot owned by (a) physical/private person(s)
Scale	Large	Acquisition of the entire plot (100% of the area)
Magnitude	Significant	Evaluation of impact magnitude is based on 'large' scale and the duration of impact as the key criterion

Impact on land users: organisations

The Project land requirements for the widening of P80 and construction of new intersections include some land adjacent to P80 and currently owned by the farming enterprise Ozeritsky-Agro.

Details of the associated impact are presented in Table 6.1-2 below.

Table 6.1-2 *Details of impact on land users: organizations*

Criterion	Characteristics	Explanation
Duration	Permanent	The land will be acquired for the reconstruction of P80 and construction of intersections
Frequency	Single	-
Extent	Site	The land-take will be limited within several meters from the existing P80 Motorway
Scale	Small	The land-take will account for less than 1% of the land owned by the farming enterprise. However, in addition to farmland this area may include forest shelter-belts separating the fields and the motorway.
Magnitude	Moderate	Evaluation of impact magnitude is based on 'moderate' scale and the duration of impact which is the key criterion

Receptors sensitive to the subject impact

Receptors/resources affected by this impact will be land owners - physical persons and a farming enterprise.

As of June 2017, the plot was not built-up or planted and was offered for sale (Figure 6.1-1). Due to the above, the receptor's responsivity may be evaluated as 'low'.

The Project will require acquisition of some land owned by Ozeritsky-Agro farming enterprise. The land acquisition will affect only marginal parts of the farmland and will not result in separation of the fields. However, this area may include forest shelter-belts. Subsequent restoration of these belts may result in additional expenses that will have to be incurred by the affected organisation. Due to this possibility the responsivity of the resource/asset may be evaluated as 'medium'.

Assessment of risks and impacts

Assessment of significance of impact on land users is detailed in Table 6.1-3 below.

Table 6.1-3 *Assessment of significance of impact on land users*

Impact	Magnitude	Responsivity of receptors/resources	Significance of potential impact
Acquisition of the land plot owned by a physical person	Large	Low	Moderate
Acquisition of the land plot owned by the organisation	Moderate	Medium	Moderate

Mitigation measures

Minimisation of impact

The design of P80, driveways and viaducts aims to minimise land acquisition requirements. In plain view, the motorway section after the reconstruction is entirely aligned with the existing route.

Following public consultations undertaken on 31 July 2017 the Client and the Design organisation decided to raise the issue of the need to review the design solutions for the intersection in Okolitsa at the meeting of the Science and Engineering Board that will be held on 3 August 2017 at the Ministry of Transport and Communications (Services).

If the proposed intersection in Okolitsa is removed/designed out, no acquisition of the privately owned plot will be required.

Compensation of impact associated with the acquisition of land of the farming enterprise

The national legislation provides for compensations for acquisition and purchase/taking of land.

In the case of farmland, potential losses of agricultural production must be covered. Compensation amounts will be determined by:

- location of plots;
- soil quality;
- intensity of agricultural production; and
- degree of amelioration.

Approximate losses of agricultural production are assessed during preliminary agreement on acquisition of particular land plot. The actual size of losses is determined during land acquisition planning and establishing of the plot required for the Project facilities.

The Project provides for the landscaping of the area adjacent to P80 which will facilitate restoration of the forest shelter-belt.

*The significance of impact associated with the farmland acquisition will be **negligible** provided that impact mitigation measures are implemented and the impact is minimized.*

Compensation of impact associated with the acquisition of the privately owned land plot

Compensation amounts for acquisition of privately owned land plots for public needs²³ are determined as follows:

- if the plot was purchased at the public sale of land, compensation amount *will be equivalent to the auction cost of the plot allowing for inflation;*
- in all other cases *compensation amounts will be equivalent to the cadastral value of a given plot.*

At the wish of the owner the latter may receive an equivalent allotment as a compensation for the plot acquired for the public needs.

Disputes associated with land acquisition shall be settled in court.

Recommended additional measures

- Engagement with the plot owner to settle the issue of compensation amount.

If the owner does not agree with the land acquisition terms, he may appeal to court. Court proceedings may result in the Project implementation delay and additional costs to the Client. It is recommended that the plot owner is engaged at an early stage to negotiate and agree on the compensation amount.

*In case of just compensation of the plot cost, or provision of equivalent allotment at the owner's wish, the residual impact will be minimized and its significance will be assessed as **negligible**.*

²³ 'Regulations on acquisition of privately owned land plots for public needs' approved by the Council of Ministers of Belarus, Decree 462 of 26.03.2008

6.2.1 *Impacts on the transport infrastructure*

Project impact directions

It is expected that the traffic on national and local roads in Minsk Region will increase as a result of transportation of goods required for the Project (P80 reconstruction). Regular intensive use of the roadbed during construction may increase the rate of wear of the transport network.

Intensity and routes of goods and material transportation are not known due to the early stage of the Project development. Suppliers of major construction materials and constructions and building material requirements were identified at the investment feasibility study/TEO stage (see the 'Project Description' in Section 2.3.3 for details).

It is assumed that the Project goods and materials will be transported via some national and local roads in Minsk Region (assumed transportation routes are described in Section 2.3.4).

Local roads and communities living in settlements near these roads will be exposed to worst impacts. No significant impact associated with the use of national roads is expected due to their status, existing traffic intensity, and the high level of road safety.

In view of the above, potential impacts associated with transportation via national roads are not subject to further assessment.

Basing on the state of the existing transport network can be assumed that materials and goods will be carried via the following local roads:

- Dzerzhinsky District:
 - H8364 (the road section passing near Cherkassy and Fanipol);
 - Zavodskaya and other streets in Fanipol that will be used for transportation of goods;
- Minsk District:
 - H9031 (the road section passing near Zagorye, Semkovo, Primorye, and several gardening cooperatives);
 - H9037 (the road section passing across Skuraty and Korolyov Stan); and
- Zaslavl: Zavodskaya and Sovetskaya streets, H8941.

The average intensity of the Project building material transportation was estimated taking into account building material quantities, carrying capacity of JSC Beldortrans vehicles, and duration of construction.

Existing traffic intensity for H8364, H9031 and H9037 is assumed similar to roads which cross P80. Thus, the estimated increase in traffic intensity during construction materials transportation will not be greater than 3%.

Due to the absence of data on the building constructions/structures requirements, the estimated traffic intensity for the streets of Fanipol and Zaslavl and adjacent roads can be assessed only qualitatively. The building constructions transportation requirements will be less than those estimated for the building materials.

Table 6.2-1 *Characterization of impacts on the transport infrastructure*

Route	Road (settlement)	Criterion	Level	Explanation	Magnitude
Transportation of sand from the Cherkassy borrow pit to P1	H8364 (Cherkassy)	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Moderate</i>
		Frequency	Frequent	Transportation of goods will carried out regularly during execution of construction works	
		Extent	Local	Impact will affect local roads only	
		Scale	Medium	Average traffic intensity during construction will vary from 9 to 14 vehicles per day	
Transportation of large reinforced concrete structures from the Fanipol Plant to P1	H8364 or Zavodskaya and Komsomolskaya streets (Fanipol)	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Minor</i>
		Frequency	Frequent	Transportation of goods will carried out regularly during execution of construction works	
		Extent	Local	Impact is expected to affect only local roads and streets	
		Scale	Negligible	Structures transportation requirements are expected to be lower than the volumes of building materials transportation	
Transportation of cement, rock, sand after screening, culverts and cationic emulsion from the industrial area of Zaslavl to P28	Zavodskaya str. Sovetskaya str. or H8941 (Zaslavl)	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Moderate</i>
		Frequency	Frequent	Transportation of goods will carried out regularly during execution of construction works	
		Extent	Local	Impact is expected to affect only local roads and streets	
		Scale	Small	Average intensity of cement and rock transportation via streets and roads during construction will be 4 to 7 vehicles per day.	

Route	Road (settlement)	Criterion	Level	Explanation	Magnitude
				Structures transportation requirements are expected to be lower than the volumes of building materials transportation	
Transportation of cement, sand and rock from national motorway M2 to the asphalt-concrete plant in Korolyov Stan Transportation of asphalt concrete and concrete from the asphalt-concrete plant in Korolyov Stan to M2	H9037 <i>(Skuraty, Korolyov Stan)</i>	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Significant</i>
		Frequency	Frequent	Transportation of goods will be carried out regularly during execution of construction works	
		Extent	Local	Impact will affect local roads only	
		Scale	Large	Average traffic intensity during construction will vary from 47 to 89 vehicles per day	
Transportation of cement and rock from P28 to P58	H9031 <i>(Zagorye, Semkovo, Primorye, Laporovich, Cantonment 137A; gardening cooperatives 'Armejets', 'Zatsensky Rodnik' and 'Aviator'; recreation facilities at Zaslavsky water reservoir)</i>	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Moderate</i>
		Frequency	Frequent	Transportation of goods will be carried out regularly during execution of construction works	
		Extent	Local	Impact will affect local roads only	
		Scale	Medium	Average traffic intensity during construction will vary from 4 to 7 vehicles per day	

Receptors sensitive to the subject impact

Impacts associated with increased traffic on local roads will affect the quality of roadbed of the local street and road network.

Roads, which, presumably, will be used for the Project-related transportation activities, are paved with asphalt. Vulnerability of the transport infrastructure with regard to increased loads can be assessed as 'low'. Importance of affected resources is evaluated by availability of alternative transportation routes bypassing settlements.

Responsivity of potentially affected resources is described below in Table 6.2-2.

Table 6.2-2 *Assessment of responsivity of resources exposed to potential impacts on the transport infrastructure*

Resources	Explanation	Sensitivity	Importance	Responsivity
H8364	The road is paved with asphalt and passes along the margin of Cherkassy. It is not the only or main transport route for the local community.	Low	Low	Low
	The road is paved with asphalt and passes along the margin of Fanipol. It is not the only route but the best transport option preferred by the local community.	Low	Medium	Low
Fanipol: Zavodskaya and Komsomolskaya streets	Streets are paved with asphalt and pass across the residential area of Fanipol. These are not the only routes but the best transport options preferred by the local community.	Low	Medium	Low
Zaslavl: Zavodskaya and Sovetskaya streets	Streets are paved with asphalt and pass across the centre of the city. These are the main transport routes of the urban community.	Low	High	Medium
H8941	The road is paved with asphalt and serves as a bypass road for Zaslavl.	Low	Medium	Low
H9037	The asphalt-paved road passes across the centre of Skuraty. It is the only sealed road apart from earth roads to the fields.	Low	High	Medium
	The road is paved with asphalt and passes across the residential area of Korolyov Stan. It is the only access route for several houses and the best (optimal) route for residents of the eastern part of the village.	Low	High	Medium
H9031	The road is paved with asphalt and passes along the margin of Zagorye, Laporovichi, Cantonment 137A, gardening cooperative 'Armejets'. It is the only transportation route for local communities.	Low	High	Medium
	The road is paved with asphalt and passes along the margin of Semkovo. It is not the only route but the preferred transport option for some local residents.	Low	Low	Low
	The road is paved with asphalt and passes along the margin of recreation facilities at Zaslavsky water reservoir. It is the only	Low	High	Medium

Resources	Explanation	Sensitivity	Importance	Responsivity
	transportation route for holidaymakers and personnel.			
	The road is paved with asphalt and passes along the margin of Primorye. It is the only transportation route for the majority of the local residents.	Low	High	Medium
	The road is paved with asphalt and passes along the margin of gardening cooperatives 'Zatsensky Rodnik' and 'Aviator'. It is not the only road but the main transportation route for the local community.	Low	Medium	Low

Assessment of impacts and risks

Exploitation of the transport infrastructure at the Project construction stage may potentially affect the quality of local roads. This impact is detailed in Table 6.2-3.

Table 6.2-3

Assessment of significance of impact on the transport infrastructure

Affected resources: road/street (settlement)	Magnitude	Responsivity of receptors/resources	Impact significance
H8364 (Cherkassy)	Moderate	Low	Minor
H8364, Zavodskaya and Komsomolskaya streets (Fanipol)	Minor	Low	Negligible
Zavodskaya and Sovetskaya streets (Zaslavl)	Moderate	Medium	Moderate
H8941 (Zaslavl)	Moderate	Low	Minor
H9037 (Skuraty, Korolyov Stan)	Significant	Medium	Major
H9031 (Zagorye, Laporovichy, Cantonment 137A, gardening cooperative 'Armeyets', recreation facilities at Zaslavsky water reservoir)	Moderate	Medium	Moderate
H9031 (Semkovo, gardening cooperatives 'Zatsensky Rodnik' and 'Aviator')	Moderate	Low	Minor

Mitigation measures

Since no decision on the routes for material and building structures transportation was made the investment feasibility study/TEO stage, recommended impact mitigation measures include priority use of national motorways and minimization of traffic on local roads passing by/along settlements

Once transportation routes and traffic intensity have been established, it will be necessary to undertake the following:

- conduct inspection of roads to gather information about condition of the roadbed and shoulders at the preparation stage;
- Where appropriate make roadbed repairs prior to commencement of construction and transportation of Project goods and materials;
- inform the community about expected increase in traffic intensity and proposed impact mitigation measures (road repair), as well as about available grievance mechanism; and
- on completion of construction conduct inspection of roads to gather information about condition of the roadbed and provide for repairs, if necessary.

6.2.2 *Community Health and Safety*

Project impact directions

The Project's impact on community health and safety during construction will be associated with increased traffic on local roads caused by the need to deliver goods and materials for the Project. Potential traffic increase may result in dust generation, pollutant emissions, high noise levels, and increased risks of road accidents.

At the time of the Social Impact Assessment process information about transportation requirements, estimated traffic intensity and transportation routes was not available because the design was at its earliest development stage.

In view of the above, assessment of impacts on community health and safety is based on estimated increase of traffic intensity due to transportation of building materials. Due to the absence of data on the building constructions/structures requirements, the estimated traffic intensity for the streets of Fanipol and Zaslavl and adjacent roads can be assessed only qualitatively. The building constructions transportation requirements are not expected to be greater than those estimated for the building materials.

Details of impacts are provided in Table 6.2-4 below.

Table 6.2-4 *Characterization of impacts on community health and safety*

Route	Road (settlement)	Criterion	Level	Explanation	Magnitude
Transportation of sand from the Cherkassy borrow pit to P1	H8364 (Cherkassy)	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Moderate</i>
		Frequency	Frequent	Transportation of goods will be carried out regularly during execution of construction works	
		Extent	Local	Impact will affect local roads only	
		Scale	Medium	Average traffic intensity during construction will vary from 9 to 14 vehicles per day	
Transportation of large reinforced concrete structures from the Fanipol Plant to P1	H8364 or Zavodskaya and Komsomolskaya streets (Fanipol)	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Minor</i>
		Frequency	Frequent	Transportation of goods will be carried out regularly during execution of construction works	
		Extent	Local	Impact is expected to affect only local roads and streets	
		Scale	Negligible	Structures transportation requirements are expected to be lower than the volumes of building materials transportation	
Transportation of cement, rock, sand after screening, culverts and cationic emulsion from the industrial area of Zaslavl to P28	Zavodskaya str. Sovetskaya str. or H8941 (Zaslavl)	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Moderate</i>
		Frequency	Frequent	Transportation of goods will be carried out regularly during execution of construction works	
		Extent	Local	Impact is expected to affect only local roads and streets	
		Scale	Small	Average intensity of cement and rock transportation via streets and roads during construction will be 4 to 7 vehicles per day. Structures	

Route	Road (settlement)	Criterion	Level	Explanation	Magnitude
				transportation requirements are expected to be lower than the volumes of building materials transportation	
Transportation of cement, sand and rock from national motorway M2 to the asphalt-concrete plant in Korolyov Stan Transportation of asphalt concrete and concrete from the asphalt-concrete plant in Korolyov Stan to M2	H9037 <i>(Skuraty, Korolyov Stan)</i>	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Significant</i>
		Frequency	Frequent	Transportation of goods will be carried out regularly during execution of construction works	
		Extent	Local	Impact will affect local roads only	
		Scale	Large	Average traffic intensity during construction will vary from 47 to 89 vehicles per day	
Transportation of cement and rock from P28 to P58	H9031 <i>(Zagorye, Semkovo, Primorye, etc.)</i>	Duration	Medium(-term)	Increase of the Project-related traffic will be temporary and will be limited to the construction stage only (not more than 22 months)	<i>Moderate</i>
		Frequency	Frequent	Transportation of goods will be carried out regularly during execution of construction works	
		Extent	Local	Impact will affect local roads only	
		Scale	Medium	Average traffic intensity during construction will vary from 4 to 7 vehicles per day	

Socioeconomic receptors/resources sensitive to the subject impact

Potential health and safety impacts will be associated with community groups living in proximity to the proposed Project-related transportation routes.

Some settlements are located in the immediate proximity to the transportation routes. *Appendix 2* provides description of the residential area²⁵ with a focus on the front parts facing roads and streets that will be presumably used for the Project-related transport operations. Assessment of responsiveness of receptors/resources is based on characteristics of particular residential areas:

- Impact on safety:
 - location of the residential area relative to the road;
 - availability of pedestrian crossings;
 - location of entrances into yard space.
- Impact on health:
 - distance from the road to residential buildings;
 - trees between the road and residential buildings; and
 - condition of the road shoulder.

Results of receptor/resource responsiveness assessment are reported below in Table 6.2-5.

Table 6.2-5 *Responsivity of receptors/resources to health and safety impacts*

Receptor/resource	Responsivity of receptors/resources to health impacts	Responsivity of receptors/resources to safety impacts
Cherkassy (H8364)	<i>Medium</i>	<i>Medium</i>
Fanipol (H8364)	<i>Medium</i>	<i>Medium</i>
Fanipol (Zavodskaya and Komsomolskaya streets)	<i>High</i>	<i>Medium</i>
Zaslavl (Zavodskaya and Sovetskaya streets)	<i>High/Medium</i>	<i>High</i>
Zaslavl (H8941)	<i>Medium</i>	<i>Medium</i>
Skuraty, Korolyov Stan (H9037)	<i>High</i>	<i>High</i>
Zagorye, Semkovo, recreation/holiday facilities, Primorye, Cantonment 137A, gardening cooperatives 'Zatsensky Rodnik', 'Aviator', and 'Tekstilschik' (H9031)	<i>Medium</i>	<i>Medium</i>

Assessment of impacts and risks

Exploitation of the transport infrastructure at the Project construction stage may have potential impacts on community health and safety. Impact details are presented below in *Table 6.2-6*.

²⁵ Description is based on publicly available satellite images of the subject area

Table 6.2-6

Assessment of significance of impact on community health and safety

Receptor/resource	Impact magnitude	Responsivity of receptors/resources	Impact significance
Impact on Health			
Cherkassy (H8364)	Moderate	Medium	Moderate
Fanipol (H8364)	Minor	Medium	Minor
Fanipol (Zavodskaya and Komsomolskaya streets)	Minor	High	Moderate
Zaslavl (Zavodskaya and Sovetskaya streets)	Moderate	High	Major
Zaslavl (H8941)	Moderate	Medium	Moderate
Skuraty, Korolyov Stan (H9037)	Significant	High	Moderate
Zagorye, Semkovo, recreation/holiday facilities, Primorye, Cantonment 137A, gardening cooperatives 'Zatsensky Rodnik', 'Aviator', and 'Tekstilschik' (H9031)	Moderate	Medium	Moderate
Impact on Safety			
Cherkassy (H8364)	Moderate	Medium	Moderate
Fanipol (H8364)	Minor	Medium	Minor
Fanipol (Zavodskaya and Komsomolskaya streets)	Minor	Medium	Minor
Zaslavl (Zavodskaya and Sovetskaya streets)	Moderate	High	Major
Zaslavl (H8941)	Moderate	Medium	Moderate
Skuraty, Korolyov Stan (H9037)	Significant	High	Major
Zagorye, Semkovo, recreation/holiday facilities, Primorye, Cantonment 137A, gardening cooperatives 'Zatsensky Rodnik', 'Aviator', and 'Tekstilschik' (H9031)	Moderate	Medium	Moderate

Mitigation measures

Since no decision on the routes for material and building structures transportation was made the investment feasibility study/TEO stage, recommended health and safety impact mitigation measures focus on the priority use of national motorways.

Additionally recommended mitigation measures consist of some initiatives aimed at improvement of road safety, e.g.:

- develop and implement road and traffic safety procedures for contractors (with a focus on traffic within settlements);
- implement a grievance mechanism for the local community and drivers to raise and address concerns and issues associated with road safety;
- inform the community about road safety activities implemented by the Company (Minskavtodor);

- respond to potential complaints by local residents by engaging with the traffic police/road safety authority to implement in the affected settlements a package of measures aimed at improvement of road safety:
 - establish additional pedestrian crossings;
 - introduce additional speed limitations (40 km/h within settlements);
 - install/build artificial speed control bumps/humps, etc.; and
 - prohibit traffic of trucks within settlements at night time.

6.3 OPERATION STAGE

6.3.1 Impact on local industries

Project impact directions

Implementation of the Project and construction of multilevel intersections will result in increased mileage of vehicles of the companies/enterprises operating within the Project implementation area.

Potential increase of travel distance, which will depend on the direction and particular intersection used, may amount to 8 km²⁶ for vehicles of local companies.

Taking into account the average fuel consumption by cars per 1 km and the fuel prices²⁷ in Belarus as of August 2017, additional travel distance of 8 km will lead to additional costs for organizations operating trucks/ freight carriers in the amount of ca. 2.67 BYN (1.37 USD) per trip.

This impact is detailed below in Table 6.3-1.

Table 6.3-1 *Characterization of impact associated with increased transportation costs for organizations*

Criterion	Level	Explanation
Duration	Permanent	Intersections will be used during the entire life of the P80 Motorway.
Frequency	Continuous	Intersections will be used every day.
Extent	Local	Increased mileage will affect organisations located within the territory of Ostroshitsko-Gorodoksky and Ozeritsko-Slobodskoy Rural Councils.
Scale	Medium	The travel distance for enterprises/companies will increase by 8 km per trip.

²⁶ Maximum increase of the travel distance for local residents taking into account the proposed construction of an intersection within Okolitsa

²⁷ Official website of Belarusneft (visited on 2 August 2017):
<http://www.belorusneft.by/sitebeloil/ru/center/azs/center/fuelandService/price/>

Criterion	Level	Explanation
<i>Magnitude</i>	<i>Significant</i>	<i>Evaluation of impact magnitude is based on 'medium' scale and permanent duration of impact which is the key criterion</i>

Socioeconomic receptors/resources sensitive to the subject impact

Receptors/resources affected by this impact will be enterprises and organisations operating within the territory of Ostroshitsko-Gorodoksky and Ozeritsko-Slobodskoy Rural Councils adjacent to P80. The impact will primarily affect farming enterprises, e.g. Minskaya Poultry Farm No. 1 and Ozeritsky-Agro. These companies use P80 for mobilisation of agricultural machines to the fields and for transportation of agricultural produce.

Responsivity of potentially affected resources is described below in Table 6.3-2.

Table 6.3-2 *Responsivity of receptors/resources to the impact associated with increased travel distance*

Receptor/Resource	Explanation	Responsivity
Farming enterprises: <ul style="list-style-type: none"> Minskaya Poultry Farm No. 1 Ozeritsky-Agro 	The P80 Motorway separates production facilities from the fields	Medium

Assessment of impacts and risks

Impact significance was evaluated taking into account differences in responsivity of receptors/resources (Table 6.3-3).

Table 6.3-3 *Assessment of significance of impact on local industries/enterprises*

Receptor/Resource	Magnitude	Responsivity	Impact significance
Farming enterprises: <ul style="list-style-type: none"> Minskaya Poultry Farm No. 1 Ozeritsky-Agro 	Significant	Medium	Major

Mitigation measures

Following consultations with the district authorities the Client and the Design organisation agreed to make changes to the design of the intersection at Sosnovaya which include extension of local driveways to enable access of agricultural machinery of Ozeritsky-Agro to the fields.

Due to the prohibition of left turns for trucks using local road H9539 (Sosnovaya – Zadomlya) these vehicles would have to use the M2 toll road at

the intersection at Kurgan Slavy²⁸. The above-mentioned changes to the design will minimise additional transport expenses of this farming enterprise.

6.3.2 *Impact on community health and safety*

Project impact directions

Construction of the intersection in Okolitsa will result in considerable increase of traffic intensity on Lugovaya, Solnechnaya and Tsentralnaya streets and, consequently, in increased pollutant emissions, noise levels and dust generation. Increased traffic intensity within the village will also affect the safety of pedestrians, in particular, children and vulnerable groups, e.g. wheelchair persons and elderly people.

Taking into account the existing traffic intensity at the crossing of P80 with local road H9059 in Okolitsa it can be assumed that the new intersection will redirect the entire traffic flow (approximately 3,000 vehicles), including trucks, to the streets of the village.

During public consultations held on 31 July 2017 residents of Okolitsa voiced their concerns with regard to the proposed intersection. In response to serious concerns of the community the Client (Minskavtodor/Company) and the Design organisation decided to raise the issue of the need to review the design solutions for the intersection in Okolitsa at the meeting of the Science and Engineering Board that will be held on 3 August 2017 at the Ministry of Transport and Communications (Services).

Assessment of potential impacts on community health and safety provided below was made for the construction of the intersection within Okolitsa.

The preliminary EIA undertaken by the Design organisation included assessment of the Project's impact on air quality and noise levels due to increased traffic capacity of P80 and predicted increase of traffic intensity. Impacts on air quality and noise pollution that will be caused by increased traffic within the village were not evaluated.

Consequently, assessment of potential impact on community health can be based only on predicted (estimated) increase of street traffic in Okolitsa. Characterisation and assessment of the impact magnitude is presented below in Table 6.3-4.

²⁸ The toll must be paid by vehicles with the technically allowed total weight exceeding 3.5 t; exempt from toll payment are cars registered in the territory of the Eurasian Economic Union, motorcycles, wheeled tractors, and urban public transport buses

Table 6.3-4 *Characterization of impacts on community health and safety*

Criterion	Level	Explanation
Duration	Permanent	Increased traffic on the village streets will persist through the entire life of the Project (i.e. P80 operation)
Frequency	Continuous	Belgiprodor predicts continuous growth of traffic intensity
Extent	Site	Impact will be limited to the residents of Okolitsa
Scale	Large	Existing traffic intensity on Tsentralnaya Street (H9059) is: <ul style="list-style-type: none"> • 3251 vehicles per day north of P80 • 701 vehicles per day north of P80. Construction of the proposed intersection will result in redirection/distribution of the traffic flow to Lugovaya and Solnechnaya streets
Magnitude	<i>Significant</i>	<i>Evaluation of impact magnitude is based on 'large' scale and permanent character of impact which is the key criterion</i>

Socioeconomic receptors/resources sensitive to the subject impact

Receptors of this impact will be residents of Okolitsa. Protection of community health and provision of community safety is one of the key Performance requirements of the Bank²⁹. Consequently, the importance of receptors is assessed as 'high'.

Taking into account specific impacts, several groups of receptors were identified based on different sensitivity to these impacts. These groups may overlap, e.g. children, elderly people and, possibly, disabled persons are likely to be among residents of houses on Lugovaya, Solnechnaya and Tsentralnaya streets.

Table 6.3-5 provides evaluation of responsivity of receptors based on their high importance and varying sensitivity.

Table 6.3-5 *Assessment of the responsivity of receptors to health and safety impacts*

Receptor group	Explanation	Sensitivity	Importance	Responsivity
Impact on Health				
Vulnerable community groups: <ul style="list-style-type: none"> • wheelchair persons • elderly people 	Disabled persons and elderly individuals are sensitive to the subject impacts due to more vulnerable health and limited mobility.	High	High	High
Residents of houses	Lugovaya, Solnechnaya and Tsentralnaya	High	High	High

²⁹ Performance Requirement 4: Health and Safety

Receptor group	Explanation	Sensitivity	Importance	Responsivity
in Tsentralnaya, Lugovaya and Solnechnaya streets	streets will be the main driveways for the intersection in Okolitsa and will bear the major load of increased traffic.			
All villagers	Tsentralnaya, Lugovaya and Solnechnaya streets form a ring around the centre of the village. Increased emissions, noise and dust generation will also affect residents of houses in the neighbouring streets.	Medium	High	Medium
Impact on Safety				
Vulnerable community groups: <ul style="list-style-type: none"> • children • wheelchair persons • elderly people 	<p>Due to the lack of practical knowledge of road safety rules children will be most sensitive to safety impacts associated with increased traffic intensity in the streets which were used for leisure/games earlier.</p> <p>Disabled persons and elderly people are sensitive to the subject impacts due to their limited mobility.</p>	High	High	High
Residents of houses in Tsentralnaya, Lugovaya and Solnechnaya streets	Lugovaya, Solnechnaya and Tsentralnaya streets will be the main driveways for the intersection in Okolitsa and will bear the major load of increased traffic.	High	High	High
All villagers	The only store in the village is located at the crossing of Tsentralnaya and Solnechnaya streets. All villagers use this store. These streets will serve as the main driveways for the proposed intersection in Okolitsa, i.e. customers will be exposed to impacts associated with the traffic increase.	Medium	High	Medium

Assessment of impacts and risks

The significance of impact on community health and safety was evaluated taking into account different responsivity of receptors (Table 6.3-6).

Table 6.3-6

Assessment of significance of impact on community health and safety

Receptors	Impact magnitude	Responsivity of receptors	Significance of potential impact
Impact on Health			
Residents of houses in Tsentralnaya, Lugovaya and Solnechnaya streets: <ul style="list-style-type: none"> wheelchair persons elderly people. 	Significant	High	Major
All residents of Okolitsa	Significant	Medium	Major
Impact on Safety			
Residents of houses in Tsentralnaya, Lugovaya and Solnechnaya streets: <ul style="list-style-type: none"> children wheelchair persons elderly people. 	Significant	High	Major
All residents of Okolitsa	Significant	Medium	Major

Mitigation measures

During public consultations residents of Okolitsa repeatedly voiced their concerns with regard to the proposed construction of the intersection in the streets of their village, including concerns with potential pollution and decline of safety. Following these consultations the Client (Minskavtodor/Company) and the Design organisation decided to raise the issue of the need to review the design solutions for the intersection in Okolitsa at the meeting of the Science and Engineering Board that will be held on 3 August 2017 at the Ministry of Transport and Communications (Services).

ERM recommends that the Client and Design organisation review the possibility of removal of the intersection beyond the village boundaries. Such a decision would prevent any impacts associated with potential increase of traffic intensity within the village.

If this proposal cannot be implemented, i.e. re-design of the intersection is not feasible, it will be necessary to engage with the traffic police/road safety authority and implement some measures aimed at improvement of road safety, e.g.:

- establish a controlled pedestrian crossing at the crossing of Tsentralnaya and Solnechnaya streets, as well as pedestrian crossings and walkways /sidewalks in the rest of the village streets;
- introduce additional speed limitations (20 to 40 km/h);
- install/build artificial speed control bumps/humps, etc.; and
- prohibit traffic of trucks within settlements at night time.

*Project impact directions***Landscape and visual impact**

Installation of noise screens/ barriers may limit visibility and reduce duration of insolation of houses located along the P80 Motorway.

Proposed construction of an intersection within Okolitsa will have an adverse visual impact on the surrounding area and landscape.

This impact is detailed below in Table 6.3-7.

Table 6.3-7 *Landscape and visual impact characterization*

Criterion	Level	Explanation
Installation/construction of noise screens/barriers		
Duration	Permanent	Noise barriers will be in place during the entire period of the P80 operation (life of the Project)
Frequency	-	-
Extent	Local	The total length of barriers in settlements will be about 7 km
Scale	Small	The height and place of noise barrier installation will be determined during construction design taking into account results of noise level modelling. The design documentation will undergo sanitary and environmental expert review. The preferred location is the edge of the roadbed. In this case the screens/barriers will be removed from the residential houses towards the road as far as practicable.
Magnitude	Moderate	<i>Evaluation of impact magnitude is based on 'small' scale and permanent duration of impact which is the key criterion</i>
Construction of the intersection in Okolitsa		
Duration	Permanent	The intersection will be used during the entire period of the P80 operation (life of the Project)
Frequency	-	-
Extent	Site	Landscape and visual impact will affect residents of Okolitsa.
Scale	Medium	Construction of the intersection in the streets of the village will reduce the distance between the roadbed and residential houses; it will also result in the increased intensity of vehicular traffic. At the same time, reconstruction of the streets includes construction of new roadbed, sidewalks, and urban landscaping. Based on the combination of these factors the impact scale can be assessed as 'medium'.
Magnitude	Significant	<i>Evaluation of impact magnitude is based on 'medium' scale and permanent duration of impact which is the key criterion</i>

Increased transportation costs

Removal of left turns, at-grade crossings and construction of multilevel intersections will increase the travel distance for vehicles crossing P80.

Potential increase of travel distance, which will depend on the direction and particular intersection used, may amount to 2.6 km³⁰ for personal vehicles of local residents.

Taking into account the average fuel consumption by cars per 1 km and the fuel prices³¹ in Belarus as of August 2017, additional travel distance of 2.6 km will lead to additional expenses for users of personal vehicles in the approximate amount of 0.35 BYN (0.18 USD) per trip.

This impact is detailed below in Table 6.3-8.

Table 6.3-8 *Characterization of impact associated with increased transportation costs for the community*

Criterion	Level	Explanation
Duration	Permanent	Intersections will be used during the entire life of the P80 Motorway.
Frequency	Continuous	Intersections will be used every day.
Extent	Local	Increased mileage will affect residents of settlements of Ostroshitsko-Gorodoksky and Ozeritsko-Slobodskoy Rural Councils located in proximity to the Motorway.
Scale	Small	The travel distance for the community will increase by 2.6 km per trip.
Magnitude	Moderate	<i>Evaluation of impact magnitude is based on 'small' scale and permanent duration of impact which is the key criterion</i>

Impact on interconnection of areas

The Project aims to upgrade P80 to a Category 1 road. Safety requirements for roads of Category 1 prohibit:

- road crossing outside of specially designated and equipped pedestrian walkways;
- at-grade crossings of traffic flows.

The subject section of the P80 Motorway passes through one settlement, the Village of Okolitsa. Other settlements are located on one side of the motorway.

The crossing of P80 with H9059 (a local road) is also located within Okolitsa. Implementation of the required road safety measures, e.g. separation of traffic flows by a median strip and construction of one pedestrian subway, along

³⁰ Maximum increase of the travel distance for local residents taking into account the proposed construction of an intersection within Okolitsa

³¹ Official website of Belarusneft (visited on 2 August 2017):
<http://www.belorusneft.by/sitebeloil/ru/center/azs/center/fuelandService/price/>

with prohibition of road crossing outside of specially designated and equipped crosswalks, may result in segmentation of the village and affect interconnection of areas:

1. As of July 2017, residents of houses facing P80 (in Shosseinaya, Kovalkova and Fabrichnaya streets) use direct exits from P80. After implementation of the Project it will be possible access houses in Shosseinaya Street only via Tsentralnaya Street and the exit to Kovalkova and Fabrichnaya streets will be accessible only via Ozernaya Street. This will increase the travel distance within the village and affect interconnection of areas within the settlement.
2. The proposed pedestrian subway will be located at the distance of 200 m from the existing crosswalk, i.e. the walking distance to the only store in the village will increase by 400 m per each visit. This increase will be significant for vulnerable groups, e.g. wheelchair persons and elderly people.
3. A summer camp for children is located in the western part of the village. In addition, at the time of this Report, construction of a church was in progress. Residents may cross the existing P80 Motorway at km 10 and km 11 because road safety regulations allow crossing of a two-lane road outside of designated pedestrian crosswalks if no such crosswalks are in sight.

The above-mentioned factors will affect the interconnection of areas in Okolitsa. However, these impacts will not result in complete isolation of parts of the village located on different sides of P80.

This impact is detailed in Table 6.3-9.

Table 6.3-9 *Characterization of impact on interconnection of village areas*

Criterion	Level	Explanation
Duration	Permanent	Safety measures/regulations will be in force during the entire period of P80 operation.
Frequency	Continuous	Pedestrian subways will be used every day.
Extent	Site	Interconnection of areas will affect Okolitsa only.
Scale	Small	Parts of the settlement will remain connected via a pedestrian subway fitted with facilities for wheelchair persons.
Magnitude	<i>Moderate</i>	<i>Evaluation of impact magnitude is based on 'small' scale and permanent duration of impact which is the key criterion</i>

Socioeconomic receptors/resources sensitive to the subject impact

Receptors of this impact will be the residents of settlements located along the P80 Motorway. The responsivity of receptors is described below in Table 6.3-10.

Table 6.3-10 *Assessment of the responsivity of receptors to impacts on life quality and living standards*

Receptor group	Explanation	Responsivity
Impact: construction of noise barriers		
<i>Receptors: residents/occupants of houses facing P80</i>		
Ostroshitsky Gorodok	During public consultations residents of Vilnyussky Lane requested installation of noise barriers that would completely shield the residential area from vehicles.	Installation of a noise barrier is a priority concern for local residents. This impact is not subject to further assessment.
	Residential houses in Lesnaya and Polevaya streets are separated from P80 with a local driveway (Lesnaya Street). The noise barrier will be installed between P80 and Lesnaya Street.	Medium
Belye Luzhi	The minimum distance between a noise barrier and private fences will be 3 m.	Medium
Okolitsa	Residential houses are separated from the road by local driveways (Shosseinaya and Kovalkova streets). Noise barriers will be installed between P80 and local driveways.	Medium
Raubichi	Residential houses are separated from the roadway by several rows of trees. Noise barriers will be installed in the immediate proximity to P80.	Low
Tavolga Dachas	Residential houses are separated from the roadway by a single row of trees. Noise barriers will be installed between the new local driveway and the trees.	Low
Baguta	Residential houses are located more than 100 m away from the roadway and are separated from it by a single row of trees. Noise barriers will be installed between the new local driveway and the trees.	Low
Sosnovaya	Most residential houses are separated from the roadway with a single row of trees.	Low
	One house at the P80/H9539 (Tsentralnaya Street) intersection is separated from the roadway by a fence only.	Medium
	Some houses are located at an elevation relative to the road level. During public consultations residents of these houses requested installation of noise barriers.	Installation of a noise barrier is a priority concern for local residents. This impact is not subject to further assessment.
Impact: construction of the intersection in Okolitsa		
<i>Receptors: residents of houses facing the streets that are subject to reconstruction</i>		
Tsentralnaya Street (H9059)	As of 2017, the street is characterised by intensive traffic and is classified as a local road. This is a through street that provides access to a poultry farm and a vegetable warehouse in the south, and to Raubichi and Gubichi settlements in the north.	Low
Lugovaya Street	This earth road/driveway provides access to residential houses. The street is practically not used for through traffic. Reconstruction.	High
Solnechnaya Street	The street section connecting Shosseinaya Street with the main Solnechnaya Street is used for access to residential houses. This earth road is practically not used for through traffic.	High
	The main section of Solnechnaya Street is one of the central streets of the village and is used for through traffic to Raubichi. The street is paved with asphalt.	Medium

Receptor group	Explanation	Responsivity
Impact: increased travel distance		
<i>Receptors: residents of settlements in Ostroshitsko-Gorodoksky and Ozeritsko-Slobodskoy Rural Councils located in proximity to the Motorway</i>		
Residents using personal vehicles	For daily round trips to Minsk the travel distance may increase by 10-15%. For trips between settlements the travel distance may increase by 30-40%. During public consultations held on 31 July 2017, in particular, discussion of the proposed intersection in Okolitsa, local residents proposed to remove the intersection from the residential area, even though this change to the design may result in further increase in travel distances.	Low
Low-income community groups using personal vehicles	Low-income community groups are the most vulnerable receptors with regard to this impact.	Medium
Impact on interconnection of areas		
<i>Receptors: residents of Okolitsa</i>		
All villagers	As a result of the Project implementation local residents will be able to cross P80 within the village at one location only.	Medium
Community groups with limited mobility	Wheelchair persons and elderly people will have to walk additional distance of 400 m.	Medium

Assessment of impacts and risks

The significance of impact on living standards was evaluated taking into account different responsivity of receptors (Table 6.3-11).

Table 6.3-11 *Assessment of significance of impact on life quality and living standards*

Receptors	Impact magnitude	Responsivity of receptors	Significance of potential impact
Landscape and visual impact			
<i>Local residents living in the following settlements:</i>			
Ostroshitsky Gorodok (Lesnaya and Polevaya streets)	Moderate	Medium	Moderate
Belye Luzhi	Moderate	Medium	Moderate
Okolitsa (Shosseynaya and Kovalkova streets)	Moderate	Medium	Moderate
Okolitsa (Tsentralnaya Street)	Significant	Low	Moderate
Okolitsa (Lugovaya Street, unsealed section of Solnechnaya Street)	Significant	High	Major
Okolitsa (Solnechnaya Street)	Significant	Medium	Major
Raubichi	Moderate	Low	Minor
Tavolga Dachas	Moderate	Low	Minor
Baguta	Moderate	Low	Minor
Sosnovaya (residential house at the intersection)	Moderate	Medium	Moderate

Receptors	Impact magnitude	Responsivity of receptors	Significance of potential impact
Sosnovaya (houses separated from the roadway by trees)	Moderate	Low	Minor
Increased travel distance			
Residents using personal vehicles	Moderate	Low	Minor
Low-income community groups using personal vehicles	Moderate	Medium	Moderate
Impact on interconnection of areas			
Residents of Okolitsa	Moderate	Medium	Moderate
Community groups in Okolitsa with limited mobility	Moderate	High	Major

Mitigation measures

Embedded controls (measures provided for by the Project)

Embedded controls for mitigation of *landscape and visual impact* include landscaping of areas adjacent to the P80 Motorway.

During public consultations residents of Okolitsa repeatedly voiced their concerns with regard to the proposed construction of the intersection in the streets of their village, including concerns with potential pollution and decline of safety. It was proposed to remove the intersection to the east from the village, even though this change to the design may result in further *increase in travel distances*.

The Client (Minskavtodor/Company) and the Design organisation decided to raise the issue of the need to review the design solutions for the intersection in Okolitsa at the meeting of the Science and Engineering Board that will be held on 3 August 2017 at the Ministry of Transport and Communications (Services).

After the meeting of the Science and Engineering Board on 3 August 2017 the Client disclosed the updated design of the intersection in Okolitsa which now must be discussed with the village community.

Potential *impact on interconnection of areas* in Okolitsa due to separation by P80 will be mitigated through:

- construction of a pedestrian subway that will be also designed for people with limited mobility, e.g. wheelchair persons;
- construction of pedestrian walkways and cycle lanes leading to bus stops and pedestrian subway.

Additionally recommended activities

Since the final decision on the intersection in Okolitsa has not been passed yet, the Consultant recommends that the Client and Design organisation review the possibility of removing the intersection beyond the village boundaries. This will prevent any *landscape and visual impacts* within the settlement.

Additionally recommended measures with regard to *visual impact* of the Project include the use of colour schemes and decorative elements during in the design of noise barriers.

In order to maintain *interconnection of areas* it is proposed to consider the possibility of establishing two pedestrian crossings in Okolitsa.

7 SOCIAL ACTION PLAN

ON INCREASING THE SIGNIFICANCE OF POSITIVE IMPACTS, REDUCING NEGATIVE IMPACTS AND PREVENTING RISKS

I. PREPARATION STAGE AND CONSTRUCTION STAGE

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
General actions (GA)					
GA-1	Stakeholder engagement			• Actions listed in Stakeholder Engagement Plan (see SEP).	• According to SEP
GA-2	Project information disclosure				• To be updated
GA -3	Implementation of grievance mechanism			• Implement recommended actions to improve the grievance mechanism	• Within 40 business days from the date of approval of the Social Action Plan
GA-4				• Disclosure of information about the grievance mechanism	• Within 30 business days after implementation of grievance mechanism
Measures to minimize impacts to land users					
LU-1	Acquisition of private land plot	Compensation cost in accordance with the legislation of the Republic of Belarus (in the amount of the	Moderate	• Early engagement with land owner on the issue of determining the amount of the redemption fees	• Not less than two months before the

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
		cadastral value of land)			start of construction
LU-2	Acquisition of land plot owned by the farming enterprise Ozeritsky-Agro	Compensation cost in accordance with the requirements of the Republic of Belarus (based on the approximate cost of losses)	Moderate	<ul style="list-style-type: none"> • Early engagement with land owner on the issue of determining the amount of the redemption fees • The restoration of windbreaks diverted by road construction 	<ul style="list-style-type: none"> • Not less than two months before the start of construction
<i>Measures to mitigate or minimize impacts associated with the use of local roads to transport goods and construction materials</i>					
RI-1	Impact on road safety and traffic accidents probability connected with transportation of goods and construction materials	<ul style="list-style-type: none"> • Not provided 	Minor to major (depending on the location of the recipient)	<ul style="list-style-type: none"> • Priority use of national roads and minimization of traffic on local roads along settlements (in the framework of a single document regulating the principles of road safety on the Project) 	<ul style="list-style-type: none"> • Development and implementation of single document regulating the principles of road safety on the Project before the start of transportation for the purpose of the Project
RI-2				<ul style="list-style-type: none"> • To analyze the adequacy of traffic signs and other security measures on the areas of most intense vehicular traffic and the proximity of the settlements (in the framework of a single document regulating the principles of road safety on the Project) 	<ul style="list-style-type: none"> • Development and implementation of single document regulating the principles of road safety on the Project before the start of transportation for the purpose of the Project

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
RI-5				Once transportation routes and traffic intensity have been established, it will be necessary to undertake the following: <ul style="list-style-type: none"> conduct inspection of roads to gather information about condition of the roadbed and shoulders at the preparation stage; 	<ul style="list-style-type: none"> At least 2 months prior to construction
RI-6				<ul style="list-style-type: none"> Where appropriate make roadbed repairs prior to commencement of construction and transportation of Project goods and materials; 	<ul style="list-style-type: none"> before the start of transportation for the purpose of the Project
RI-7				<ul style="list-style-type: none"> inform the community about expected increase in traffic intensity and proposed impact mitigation measures (road repair), as well as about available grievance mechanism; and on completion of construction conduct inspection of roads to gather information about condition of the roadbed and provide for repairs, if necessary. 	<ul style="list-style-type: none"> At least one week prior to transportation in order to implement the Project
<i>Minimization of risks to health of the local population connected increased traffic on local roads caused by the need to deliver goods and materials for the Project</i>					
TM-1	Dust generation, pollutant emissions, high noise levels	Not provided	Minor to major (depending on the location of the recipient)	<ul style="list-style-type: none"> Develop and implement road and traffic safety procedures for Contractor (Beldortrans) (with a focus on traffic within settlements) (the inclusion of the duty to comply with the principles of Project road safety in agreement with the Contractor) 	<ul style="list-style-type: none"> At least one week before the start of transportation for the purpose of the Project
TM-2				<ul style="list-style-type: none"> implement a grievance mechanism for the local community and drivers to raise and address concerns and issues associated with road safety 	<ul style="list-style-type: none"> At least one week prior to transportation in order to implement the Project
TM-3				<ul style="list-style-type: none"> inform the community about road safety activities implemented by the Company (Minskavtodor); 	<ul style="list-style-type: none"> At least one week prior to transportation in order to

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
					implement the Project
TM-3		•		<ul style="list-style-type: none"> Respond to potential complaints by local residents by engaging with the traffic police/road safety authority to implement in the affected settlements a package of measures aimed at improvement of road safety: <ul style="list-style-type: none"> establish additional pedestrian crossings; introduce additional speed limitations (40 km/h within settlements); install/build artificial speed control bumps/humps, etc.; and prohibit traffic of trucks within settlements at night time. 	<ul style="list-style-type: none"> Not later than within two weeks of receipt of appeals

II. OPERATION STAGE

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
<i>General actions (GA)</i>					
GA-1	Public disclosure			<ul style="list-style-type: none"> Actions listed in Stakeholder Engagement Plan (see SEP). 	<ul style="list-style-type: none"> According to the SEP
GA-2	Grievance mechanism			<ul style="list-style-type: none"> To ensure that all stakeholders are aware of the means of communication with the Company and about the grievance mechanism by re-posting information on the grievance. 	<ul style="list-style-type: none"> Annual publication of grievance mechanism
<i>Measures to mitigate impacts to local industries</i>					
LI-1	increased mileage of vehicles of the companies/enterprises operating within the Project implementation area.	<ul style="list-style-type: none"> 	Major	<ul style="list-style-type: none"> Make changes to the design of the intersection at Sosnovaya which include extension of local driveways to enable access of agricultural machinery of Ozeritsky-Agro to the fields Due to the prohibition of left turns for trucks using local road H9539 (Sosnovaya – Zadomlya) these vehicles would have to use the M2 toll road at the intersection at Kurgan Slavy . The above-mentioned changes to the design will minimise additional transport expenses of this farming enterprise. 	<ul style="list-style-type: none"> Until the end of the disclosure period according to requirements of EBRD
<i>Measures to mitigate impact on community health and safety</i>					

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
HS-1	Increased traffic intensity within the village will also affect the safety of pedestrians	<ul style="list-style-type: none"> Construction of underground pedestrian crossings; Installation of protective screens so that they intercept random output of children and pets into the lane. 	Average to Major (depending on the recipient)	<ul style="list-style-type: none"> Review the design solution for the intersection in Okolitsa at the meeting of the Science and Engineering Board at the Ministry of Transport and Communications (Services). ERM recommends that the Client and Design organization review the possibility of removal of the intersection beyond the village boundaries. Such a decision would prevent any impacts associated with potential increase of traffic intensity within the village If this proposal cannot be implemented, i.e. re-design of the intersection is not feasible, it will be necessary to engage with the traffic police/road safety authority and implement some measures aimed at improvement of road safety, e.g.: <ul style="list-style-type: none"> establish a controlled pedestrian crossing at the crossing of Tsentralnaya and Solnechnaya streets, as well as pedestrian crossings and walkways /sidewalks in the rest of the village streets; introduce additional speed limitations (20 to 40 km/h); install/build artificial speed control bumps/humps, etc.; and prohibit traffic of trucks within settlements at night time. 	<ul style="list-style-type: none"> Until the end of the disclosure period according to requirements of EBRD
<i>Measures to mitigate impact on life quality and living standards</i>					

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
LQ-1	Landscape and visual impact. Installation of noise screens/ barriers may limit visibility and reduce duration of insolation of houses located along the P80 Motorway	В качестве мероприятий, смягчающих воздействие на визуальные свойства ландшафта, Проектом предусмотрено благоустройство и озеленение территории, прилегающей к автодороге Р-80.	Average to Major (depending on the recipient)	<ul style="list-style-type: none"> review the possibility of removing the intersection beyond the village boundaries Additionally recommended measures include the use of color schemes and decorative elements during in the design of noise barriers 	<ul style="list-style-type: none"> Until the end of the disclosure period according to requirements of EBRD
LQ-2	Increased transportation costs. Removal of left turns, at-grade crossings and construction of multilevel intersections will increase the travel distance for vehicles crossing P80		Minor to Average (depending on the recipient)	<ul style="list-style-type: none"> Reducing the impact from the increase in mileage and consumption is mutually exclusive with measures to making interchanges outside Okolitsy (see above LQ-1). As measures to reduce the impact of health and safety obviously are a higher priority, it is proposed to consider measures to reduce this impact. 	<ul style="list-style-type: none"> Not applicable
LQ-3	Impact on interconnection of areas. Implementation of the required road safety measures, e.g. separation of traffic flows by a median strip and construction of one pedestrian subway, along with prohibition of road crossing outside of specially designated and equipped crosswalks, may	<ul style="list-style-type: none"> construction of underground pedestrian crossing with due consideration of accessibility for people with limited mobility, including the disabled in wheelchairs, walking and bicycle paths to bus stops and underground pedestrian crossing. 	Average to Major (depending on the recipient)	<ul style="list-style-type: none"> Consider the possibility of two pedestrian crossings in the Okolitsy. 	<ul style="list-style-type: none"> Until the end of the disclosure period according to requirements of EBRD

	Direction of the impacts / risks associated with the potential negative impact	Project embedded activities to reduce impacts or increase positive effects	Impact significance	Recommended measures	Action timeframe
	result in segmentation of the village and affect interconnection of areas				

Annex 1

Information sources

(July 2017)

List of documents used by the Consultant in preparation of this Report

No	Document	Source
1	Environment, sanitary-epidemiological and community welfare activities for the substantiation of investments in the Project.	Provided by the Bank for preliminary review
2	Description of the public consultations procedure in Belarus.	Provided by the Bank for preliminary review
3	Layout plan of the Project.	Provided by the Bank for preliminary review
4	Proposals on the reconstruction of the P-80 motorway. Ministry of Transport and Utilities, Minsk, 2017.	Provided by the Bank for preliminary review
5	Reconstruction of the P-80 motorway. Report on environmental engineering surveys. Belgiprodor.	Provided by the Bank for preliminary review
6	Reconstruction of the P-80 motorway. Environmental impact assessment report. Belgiprodor, Minsk, 2017.	Provided by the Bank for preliminary review
7	Reconstruction of the P-80 motorway. Design proposals. Ministry of Transport and Utilities, Belgiprodor (date unknown).	Provided by the Designer during the meeting
8	Reconstruction of the P-80 motorway. Stage 1 (0.000-7.600 km). Preliminary land withdrawal plan.	Provided by the Designer during the meeting
9	Reconstruction of the P-80 motorway. Stage 2 (7.600-14.700 km). Preliminary land withdrawal plan.	Provided by the Designer during the meeting
10	Reconstruction of the P-80 motorway. Proposed location of bus stops, rest areas, subways, noise shields, and retaining walls.	Provided by the Designer during the meeting
11	Layout of the LDD-54 linear road department of the DEU-5 road maintenance area including a reagents storage facility.	Provided by the Designer during the meeting
12	The 0.000-7.600 km section of the P-80 road. Master Construction Plan.	Provided by the Designer during the meeting
13	Reconstruction of the P-80 motorway. Stage 1 (0.000-7.600 km). Road layout.	Provided by the Designer during the meeting
14	Reconstruction of the P-80 motorway. Stage 2 (7.600-14.700 km). Road layout.	Provided by the Designer during the meeting
15	Reconstruction of the P-80 motorway. Investment feasibility. Explanatory Notes. Belgiprodor, Minsk, 2017.	Provided by the Bank at the Consultant's request

Annex 2

Assessment of receptors'
responsivity to health and
safety impacts in
connection with the
transportation of goods
under the Project

Characteristics of the residential area located on the first line of the proposed transportation routes for the Project, and an assessment of receptors' responsiveness to health and safety impacts

Settlement	Road	Length of passage through/near residential areas	Comments	Distance from the road to the nearest residential houses		Sensitivity of receptors to impact on		Importance of receptors	Responsivity	
						Health	Safety		Health	Safety
Cherkassy	H8364	~180 m	<ul style="list-style-type: none"> The road passes along the settlement margin No pedestrian crossings with road marking Shoulder is covered with dust Single row of trees separates the road from residential houses Entrance into yards is from the local driveway 	5 to 20 m	4 private houses	High	Medium	High	<i>High</i>	<i>Medium</i>
Fanipol	H8364	~1 km	<ul style="list-style-type: none"> The road passes along the city margin No pedestrian crossings with road marking The road is separated from residential houses by a local driveway (through the entire length) and a single or double row of trees (~350 m) Entrance into yards is from the local driveway 	~50 m	Approximately 23-25 private houses	Low	Low	High	<i>Medium</i>	<i>Medium</i>
	Zavodskaya Street	~600 m	<ul style="list-style-type: none"> The street crosses the city Two pedestrian crossings (near a private house and near apartment blocks) The private house is separated from the street by a fence, apartment blocks – by a single row of trees Entrance into the private courtyard is from the local driveway; entrance to the yards of apartment blocks is from 	~20 m	1 private house		Medium	High	<i>High</i>	<i>Medium</i>
				~5-7 m	2 apartment blocks	High	Medium	High	<i>High</i>	<i>Medium</i>

Settlement	Road	Length of passage through/near residential areas	Comments	Distance from the road to the nearest residential houses		Sensitivity of receptors to impact on		Importance of receptors	Responsivity	
						Health	Safety		Health	Safety
			Zavodskaya Street							
	Komsomolskaya Street	~560 m	<ul style="list-style-type: none"> The street crosses the city Four pedestrian crossings The private house is separated from the street by a fence, apartment blocks – by a single row of trees Entrance into the private courtyard is from the local driveway; entrance to the yards of apartment blocks is from Komsomolskaya Street 	~ 20-25 m	1 private house	High	Medium	High	High	Medium
					5 apartment blocks	Medium	Medium	High	Medium	Medium
Zaslavl	Zavodskaya Street (Studentchinskaya Street)	~300 m	<ul style="list-style-type: none"> The street crosses the city centre between residential buildings and production facilities No pedestrian crossings with road marking Private houses are separated from the roadway with a fence; apartment blocks are separated from the street by a single row of trees and parking lots Entrance to the yards is from local driveways (streets). 	~5 m	5 private houses 3 apartment blocks	High	High	High	High	High
	Sovetskaya Street (Version 1)	~2.5 km	<ul style="list-style-type: none"> The street passes through the centre of the city across residential area Several pedestrian crossings Private houses are separated from the roadway by a fence; apartment blocks are separated from the street by a single row of trees 	5 to 10 m	32 private houses 17 apartment blocks 1 school	High	High	High	High	High
				10 to 30 m	13 private	Medium	High	High	Medium	High

Settlement	Road	Length of passage through/near residential areas	Comments	Distance from the road to the nearest residential houses		Sensitivity of receptors to impact on		Importance of receptors	Responsivity	
						Health	Safety		Health	Safety
			<ul style="list-style-type: none"> Entrance to the yards is from local driveways and directly from Sovetskaya Street Entrance to the school is from Sovetskaya Street 		houses					
	Sovetskaya Street and H8941 (Version 2)	~2.4 km	<ul style="list-style-type: none"> The road passes along the city margin Pedestrian crossings Sovetskaya Street Private houses are separated from the roadway by fences and, partly, by single or double rows of trees (~300 m) Entrance to the yards is from local driveways 	20 to 30 m	11 apartment blocks	Medium	Low	High	<i>Medium</i>	<i>Medium</i>
				80 to 100 m	16 private houses	Low	Low	High	<i>Medium</i>	<i>Medium</i>
Skuraty	H9037	~200 m	<ul style="list-style-type: none"> The road passes through the village centre and crosses a local driveway Shoulder is covered with dust No pedestrian crossing with road marking Private houses are separated from the roadway by fences Entrance to the yards is from a local driveway 	5 to 8 m	8 private houses	High	High	High	<i>High</i>	<i>High</i>
Korolyov Stan	H9037	~1.2 km	<ul style="list-style-type: none"> The road crosses the village Shoulders are covered with dust No pedestrian crossings with road marking Private houses are separated from the roadway by fences and, partly, by trees (~200 m) Entrance to the yards is from local driveways and directly from the road 	~5 m	17 private houses	High	High	High	<i>High</i>	<i>High</i>
Zagorye	H9031	~600 m	<ul style="list-style-type: none"> The road passes along the village margin Shoulder is covered with dust No pedestrian crossing with road marking 	~25-30 m	2 private houses	Medium	Low	High	<i>Medium</i>	<i>Medium</i>

Settlement	Road	Length of passage through/near residential areas	Comments	Distance from the road to the nearest residential houses		Sensitivity of receptors to impact on		Importance of receptors	Responsivity	
						Health	Safety		Health	Safety
			<ul style="list-style-type: none"> Private houses are located away from the road and separated from the roadway by a single row of trees Entrance to the yards is from a local driveway 							
Semkovo	H9031	~2.5 km	<ul style="list-style-type: none"> The road passes along the village margin and separates residential area from two recreation centres Shoulder is covered with dust No pedestrian crossings with road marking Private houses are located away from the road and separated from the roadway by fences and several rows of trees Entrance to the yards and recreation centres is from local driveways 	~35-55 m	15 private houses 3 recreation centres	Medium	Medium	High	<i>Medium</i>	<i>Medium</i>
Primorye, gardening cooperatives 'Zatsensky Rodnik' and 'Aviator'	H9031	~1.9 km	<ul style="list-style-type: none"> The road passes between residential areas of the village and gardening cooperatives 'Zatsensky Rodnik' and 'Aviator' Shoulder is covered with dust No pedestrian crossings with road marking Nearest residential houses are separated from the roadway by fences (~600 m); private houses located further away from the road are separated from it by several rows of trees (a 40 m wide belt), Entrance to the yards of private houses located further away from the road is from local driveways, to the yards of the nearest houses – from local driveways and directly from the road 	~20 m to private houses	9 private houses (nearest to the road)	Medium	Medium	High	<i>Medium</i>	<i>Medium</i>
				40 to 100 m to private houses	25 private houses (away from the road)	Low	Medium	High	<i>Medium</i>	<i>Medium</i>

Settlement	Road	Length of passage through/near residential areas	Comments	Distance from the road to the nearest residential houses		Sensitivity of receptors to impact on		Importance of receptors	Responsivity	
						Health	Safety		Health	Safety
Cantonment 137A	H9031	~280 m	<ul style="list-style-type: none"> The road passes along the margin of the cantonment No pedestrian crossings with road marking Residential houses are separated from the road by several rows of trees Entrance to the yards is from local driveways 	~35 m	2 apartment blocks	Low	Low	High	<i>Medium</i>	<i>Medium</i>
Gardening cooperative 'Tekstilschik'	H9031	~900 m	<ul style="list-style-type: none"> The road passes along the margin of the gardening cooperative One pedestrian crossing to the bus stop Private houses are separated from the road by several rows of trees Entrance to the yards is from local driveways 	~30 m	50 private houses	Medium	Low	High	<i>Medium</i>	<i>Medium</i>

Annex 3

Minutes of consultations
with stakeholders
July 31, 2017

Stakeholder consultations on design decisions related to the P80 reconstruction were conducted on 31 July 2017.

The meetings were held:

- at 11.00 in the secondary school of Sloboda, Smolevichi Distruct; and
- at 16.00 in the premises of the Rural Council of Bolshevik, Minsk District.

The Project presentation was made by representatives of Minskavtodor-Tsentr (Company), Belgiprodor (Design Organisation) and ERM (EBRD Consultant).

The meeting in Sloboda was attended by 32 people, including:

- residents of Sosnovaya and Okolitsa; and
- a representative of the Raubichi Olympic Training Centre.

The meeting in Bolshevik was attended by 15 people, including:

- residents of Okolitsa, Belye Luzhi and Ostroshitsky Gorodok.

Major design decisions related to the reconstruction of the P80 section Sloboda – Papernya at km 0.0 – km 14.7 were presented at the meetings.

The stakeholders were informed about the environmental and social impact assessment and the specifics of the assessment procedure pursuant to the national legislation and the EBRD requirements. A point of contact was communicated for dealing with public enquiries, concerns, comments and proposals.

Residents of the affected settlements actively participated in discussions of the design decisions. Concerns and proposals were partly formulated in writing and handed over to representatives of Minskavtodor-Tsentr. These public enquiries will be reviewed and the relevant answers will be communicated to the addresses specified in such enquiries.

Table 6.3-1 below contains a list of stakeholder questions, concerns and proposals received at the meetings and the relevant answers of the Company and the Design Organisation representatives. The following decisions were taken following the discussions:

- The Project presentation, including the road reconstruction layouts and major design decisions, will be published on the corporate web site of Minskavtodor-Tsentr within five days after the public consultations;
- Due to public concerns, a revision of the design decisions related to the road interchange in Okolitsa will be proposed at the technical meeting to be held in the Ministry of Transport and Communications on 3 August 2017. The junction layout will be reconsidered and alternative design decisions will be communicated to the village inhabitants. Additional meetings with residents of Okolitsa will be held to coordinate the updated design decisions. If necessary, there will be several such meetings in order to reach a compromise.

Table 6.3-1 *List of stakeholder questions, concerns and proposals received at the meetings held on July 31, 2017*

Public questions, comments, concerns and proposals	Answers and decisions of the Company and/or the Design Organisation
Questions about stakeholder engagement procedure	
To whom comments and concerns about the motorway reconstruction have to be addressed?	<p>All Project-related questions, inquiries and concerns can be sent to Minskavtodor-Centre. Contact information is available on the corporate web site of Minskavtodor-Centre and was communicated during the Project presentation.</p> <p>Questions about the national environmental and social impact assessment procedure and a written statement demanding a meeting to discuss the EIA Report are to be sent to district executive committees.</p> <p>Public consultations on the EIA Report will be conducted from 15 July until 15 August 2017 in Smolevichi District and from 29 July until 28 August 2017 in Minsk District.</p>
Where Project-related documents can be found?	<p>The Project presentation, including major design decisions, will be published on the corporate web site of Minskavtodor-Centre within five days after the public consultations (i. e. until 04 August 2017).</p> <p>The EIA Report is published on the web sites of the district executive committees and the corporate web site of Minskavtodor-Centre.</p>
Why the meetings are held in Sloboda and Bolshevik and not in Okolitsa?	Premises for the meetings were provided by the district executive committees. Additional meetings to discuss an alternative traffic plan for Okolitsa will be held in Okolitsa, if possible.
Construction of the road interchange and expansion of the carriageway near Sosnovaya	
Will the trees and houses located on the elevation remain during the reconstruction (km 2.4 of P80)?	The P80 reconstruction will not affect residential houses and trees. The roadbed will be expanded in the opposite direction.

Public questions, comments, concerns and proposals	Answers and decisions of the Company and/or the Design Organisation
Where noise barriers will be installed, what will be the height and material?	Noise barriers will be installed in settlements along the P80 Motorway. Their height, materials and location with reference to residential houses and the road will be determined at the construction project development stage following the noise level modelling in settlements. The proposed decisions on noise barriers will be submitted for the sanitary and environmental expert review.
How the traffic on the road interchange will be arranged?	Public transport vehicles, agricultural machinery, cyclists and pedestrians will use local roads.
Construction of the road interchange and expansion of the carriageway in Okolitsa	
How road expansion will be implemented in Okolitsa?	The P80 Motorway will be expanded to the right from km 10 (in the direction of traffic from the Burial Mound of Glory Memorial) to the H9059 crossing (Tsentralnaya Street) and to the left after the pedestrian crossing. The existing roadbed width allows minimization of the additional road expansion. Residential houses will not be affected. The cuts for the road expansion will be lined with retaining walls accompanied by the installation of noise barriers.
Where bus stops will be located?	<p>Option 1: the existing bus stops are retained in Okolitsa on the P80 Motorway; and</p> <p>Option 2: if the traffic interchange project is implemented for the Solnechnaya, Lugovaya and Tsentralnaya streets, 3 pairs of bus stops can be arranged in each of them.</p>
How the traffic on the road interchange in Okolitsa will be arranged?	According to the traffic interchange plan for Okolitsa, vehicles going to Okolitsa, Raubichi, Gubichi and the poultry farm will drive through the Lugovaya, Solnechnaya and Tsentralnaya streets. The Project provides for the reconstruction and improvement of these streets, including lighting, construction of pavements and installation of traffic lights and arrangement of bus stops.
Concerns were voiced regarding the passage of freight vehicles (including trucks of OAO Pervaya Minskaya Ptitsefabrika and the vegetable warehouse located in Raubichi) and private cars of Raubichi and Gubichi communities on the reconstructed streets of the village. The number of local vehicles is currently assessed at about 3 thousand, which can create a high density traffic during rush hours at 12 to 50	Due to concerns voiced during public consultations, it was decided to propose for reconsideration of design decisions related to the road interchange at the technical meeting to be held in the Ministry of Transport and Communications on 3 August 2017.

Public questions, comments, concerns and proposals	Answers and decisions of the Company and/or the Design Organisation
<p>vehicles per minute.</p> <p>The residents pointed out the following adverse impacts of the design decision providing for the transfer of the local traffic load onto the streets inside settlements:</p> <ul style="list-style-type: none"> • residential houses will be too close to the carriageway resulting in noise and, especially, dust impacts; • pedestrian safety will be affected as it will be impossible to use the streets for walking, free movement in residential areas and free movement of children; • unequal distance between bus stops (in case these will be relocated) for inhabitants of different residential areas, including children riding a school bus (some people will have to walk around 30 minutes to reach a bus stop); • the school bus timetable has to be changed as it will be impossible for the bus to travel 3 times per hour due to a longer distance and speed restrictions (traffic lights, speed humps): see details below; • the proposed construction of a pedestrian underpass 200 m away from the existing ground level pedestrian crossing will make people walk additional 400 m to visit the only shop in the village. This can be critical for vulnerable groups of the population: wheelchair riders and elderly people. <p>Five written public complaints were drawn up (and handed over to the Company) during consultations on this issue.</p>	<p>The junction layout will be reconsidered and alternative design decisions will be communicated to the village inhabitants. Additional meetings with residents of Okolitsa will be held to coordinate the updated design decisions. If necessary, there will be several such meetings in order to reach a compromise.</p>
<p>There were proposals to reconsider the road interchange layout in Okolitsa.</p> <p>Proposals were received to re-design the road interchange in Okolitsa as follows:</p> <ul style="list-style-type: none"> • the road interchange near the military installation at km 9.8 – 9.9 of the P80 Motorway has to be relocated (closer to Okolitsa) shifting the road centreline southwards; 	

Public questions, comments, concerns and proposals	Answers and decisions of the Company and/or the Design Organisation
<ul style="list-style-type: none"> the road interchange has to be located west of Okolitsa at km 10.8; the roundabout interchange has to be constructed at the proposed viaduct (km 10); the road interchange in Okolitsa has to be combined with the interchange at the Raubichi Olympic Training Centre; and a bypass road has to be built for freight vehicles and private cars of the inhabitants of Gaubichi outside Okolitsa. 	
<p>How school bus traffic will be arranged? Concern: a school bus will have too little time to pick up schoolchildren at bus stops in the Lugovaya, Solnechnaya and Tsentralnaya streets as it will have only 15 minutes to travel from the military installation to Ostroshitsky Gorodok with the speed restricted to 60 km per hour.</p>	<p>Option 1: the existing bus stops are retained in Okolitsa on the P80 Motorway. The school bus route remains unchanged; and</p> <p>Option 2: if the traffic interchange project is implemented for the Solnechnaya, Lugovaya and Tsentralnaya streets, 3 pairs of bus stops can be arranged in each of them. The school bus route has to be changed: busses will come to the village, pick up schoolchildren at bus stops and go to Ostrishitsky Gorodok.</p>
<p>Road surface runoff will be discharged to the village and wash out the local roads?</p>	<p>Road surface runoff will be collected by the drainage system and diverted to local treatment facilities.</p>
<p>How the exit from the Motorway in the Shosseynaya Street to residential houses will be arranged for private cars and fire fighting vehicles?</p>	<p>Direct exit from the P80 Motorway to residential houses will be lined with noise barriers. The exit to the local roads and the Shosseynaya Street will be arranged via the Tsentralnaya Street and the H9059 Motorway.</p>
<p>Can the bus stops be relocated with installation of two pairs of bus stops at the opposite ends of the village?</p>	<p>According to the safety regulations, bus stops cannot be installed at such a short distance from the crossroads.</p> <p>Relocation of the bus stops may cause discontent of other locals used to their present location.</p>
<p>How the access to bus stops will be arranged if these will remain where they are?</p>	<p>A pedestrian underpass will be constructed near the existing bus stops. The footways on both sides of the underpass will connect it with the bus stop.</p>

Public questions, comments, concerns and proposals	Answers and decisions of the Company and/or the Design Organisation
How the passage to bus stops will be arranged through noise barriers? Is it possible to arrange a door so that children and domestic animals cannot run out onto the motorway?	A passage break will be arranged between noise barriers as such a barrier will be installed with partial overlapping (counter barrier or double barrier). It is also possible to make a door. However, there is a risk that it can be broken and the noise will pass through the opening in the noise barrier. Therefore, the option involving partial overlapping is preferable.
What will be the vehicle speed on the P80 Motorway after the proposed reconstruction?	The design speed of passenger cars and freight vehicles will be 120 km/h and 100 km/h respectively.
Travelling of vehicles on concrete surface at high speed is associated with considerable noise levels. Can asphalted road sections be constructed in settlements?	The use of different types of road pavement is not reasonable during construction as well as at the operation stage as this will cause an increased road surface wear and make it necessary to permanently repair the road at junctions of different pavements.
Will old lindens be cut down near the crossroads in Okolitsa?	The lindens will not be cut down as the expansion in this road section will be in the opposite direction.
Two pedestrian underpasses have to be built in Okolitsa because a children's camp is operational in summer and a church is being constructed in the western part of the village. At the moment, people can cross the road at km 11 where no specially equipped road crossing is available as according to the regulations this is allowed on a two-lane road where no pedestrian crossing is available in sight. No crossing of the road outside specially equipped pedestrian crossings is allowed on the Category 1 motorway.	According to the regulations, a pedestrian crossing has to be arranged where pedestrian traffic is no less than 50 people per hour. The pedestrian traffic density is much less at the moment. The pedestrian crossing is proposed to be arranged near the bus stop, from which pedestrians will move out to the summer camp and the church.
Construction of the road interchange near the Raubichi Olympic Training Centre	
During public consultations, a written request was received from an employee of the Raubichi Olympic Training Centre for Winter Sports to construct a parking lot for 1,000 vehicles (including 300 busses and 700 cars) and provide it with fencing, main and reserve entrances, international-level infrastructure and convenient exits for fans and visitors.	<p>The Project provides for the construction of a parking lot with an interchange at the Raubichi Olympic Training Centre.</p> <p>The request will be additionally reviewed by Minskavtodor-Tsents jointly with Belgiprodor.</p>

Public questions, comments, concerns and proposals	Answers and decisions of the Company and/or the Design Organisation
Motorway reconstruction near Belye Luzhi and Ostroshitsky Gorodok	
<p>A request to install noise barriers in Belye Luzhi was received.</p> <p>At what distance these barriers will be installed? Is it possible to install them as far as possible from the fence (closer to the road)?</p>	<p>The Project provides for the installation of noise barriers in Belye Luzhi.</p> <p>The distance at which noise barriers are to be installed will be determined at the construction project development stage. The minimum distance from the fence to the noise barrier (where the fence is located at the shortest distance to the road) will amount to about 3 meters.</p> <p>The Design Organisation representatives noted that installation of noise barriers directly at the carriageway (not the houses) is most efficient.</p>
<p>During public consultations, a written request was received from inhabitants of Ostroshitsky Gorodok to install noise barriers between residential houses and the P80 Motorway, to close the driveway from the P80 Motorway to the houses and to construct a new driveway to the P40 Motorway.</p>	<p>The Project provides for the installation of noise barriers in Ostroshitsky Gorodok (Vilnyusskaya Street).</p> <p>The written request will be additionally reviewed by Minskavtodor-Tsents jointly with Belgiprodor.</p>

Annex 4

List of the applicable
normative acts of the
Republic of Belarus

Design development regulations

General requirements for design documentation development	Specific requirements for road construction and reconstruction projects
1. Law on Architectural, Town-planning and Construction Activity in Belarus, No. 300-Z of 05.07.2004 2. GOST 21.001-2013. System of design documentation for construction. General provisions. 3. TKP ³² 45-1.02-295-2014 (02250). Construction. Design documentation. Scope and content. 4. TKP 45-1.02-298-2014 (02250). Construction. Pre-project (pre-investment) documentation. Scope, development and approval procedures.	5. TKP 21.701-2013. System of design documentation for construction. Rule for preparation of working documents for road construction. 6. TKP 45-3.03-19-2006 (02250). Motor roads. Design standards. 7. TKP 45-1.02-100-2008 (02250). Design documentation for road construction. Development regulations. 8. TKP 068-2011 (02191). Motor roads. Classification and scope of work for construction, reconstruction and overhaul.
Procedure for development of the EP section (Environmental Protection)	
9. Explanatory notes PZ-02 to construction standards SNB 1.03.02-96. Scope and procedure for the development of the Environmental Protection section of the design/project documentation.	
State expert review of design/project documentation, environmental expert review	
10. Resolution of the Council of Ministers of Belarus 'On the approval of the Regulations for the procedure of the State expert review of town-planning projects, architectural and construction projects, stages of such projects, start-up complexes and cost estimate documentation and of the Regulations on the procedure for development and approval of town-planning projects and design documentation', No. 1476 of 08.10.2008.	
Requirements for infrastructure project surveys	
11. GOST 32836-2014. Public motor roads. Surveying. General requirements. 12. GOST 32847-2014. Public motor roads. Required for performance of environmental surveys. 13. TKP 45-1.02-253-2012 (02250). Engineering and geoecological surveys for construction. Procedures.	

Regulations concerning procedures for environmental expert review, environmental and social impact assessment, and information disclosure

Requirements for environmental expert review, environmental and social impact assessment, and project information disclosure
1. Law 'On the State environmental review, strategic environmental assessment and environmental impact assessment', No. 399-Z of 18.07.2016. 2. Resolution of the Council of Ministers of Belarus 'On the approval of the Regulations for the procedure for public consultations on decisions of environmental significance, environmental impact assessment reports, consideration of adopted decisions of environmental significance, and on amendments and supplements to some resolutions of the Council of Ministers', No. 458 of 14.06.2016. 3. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the approval and implementation of the technical regulations', No. 1-T of 05.01.2012. 4. Resolution of the Council of Ministers of Belarus of 13.01.2017 N 24 5. Resolution of the Council of Ministers of Belarus of 19.01.2017 N 47 "On particular measures for implementation of the Law 'On the State environmental review, strategic environmental assessment and environmental impact assessment', No. 399-Z of 18.07.2016"

³² Technical Code of Common Practice

Regulations concerning impacts on environmental components

General environmental protection requirements
<ol style="list-style-type: none"> 1. Law 'On Environmental Protection', No. 1982-XII of 26.11.1992. 2. Decree of the President of the Republic of Belarus 'On the criteria for identification of environmentally hazardous economic and other activities', No. 349 of 24.06.2008. 3. Resolution of the Council of Ministers of Belarus 'On the approval of the State Programme for Environmental Protection and Sustainable Management of Natural Resources for 2016–2020', No. 205 of 17.03.2016.
Environmental protection requirements for the process of design of the motor road infrastructure
<ol style="list-style-type: none"> 4. TKP 17.02-06-2011 (02120). Environmental protection and management of natural resources. Incorporating environmental safety controls in the design of industrial facilities, buildings, and motor road infrastructure. 5. TKP 17.02.01-2006 (02120). Environmental protection and management of natural resources. Environmental safety regulations for filling stations.
Ambient Air
<ol style="list-style-type: none"> 6. Law 'On Air Protection', No. 2-Z of 16.12.2008. 7. Resolution of the Council of Ministers of Belarus 'On the approval of the Regulations on the procedure for issuing of permits for pollutant air emissions, introduction of changes and/or supplements to these permits, suspension, renewal and extension of the effective period of the permits, and cancellation of permits', No. 664 of 21.05.2009. 8. State Standard STB 17.08.02-01-2009. Environmental protection and management of natural resources. Ambient air. Air pollutants. Codes and list. 9. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the approval of the list of pollutants, categories of air impact sources (facilities) subject to the establishing of permissible air emission limits, and of the list of air impact sources (facilities) which do not require establishing of permissible air emission limits, and on the annulment of the Resolution of the Ministry of Natural Resources and Environmental Protection dated 28.02.2005', No. 31 of 29.05.2009. 10. Resolution of the Ministry of Healthcare 'On the approval of the limit values of maximum permissible concentrations of pollutants in ambient air and approximate safe levels of impact of pollutants in the air of settlements and public recreation areas and on the annulment of the Resolution of the Ministry of Healthcare No. 75 of 30.06.2009', No. 186 of 30.12.2010. 11. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the introduction of limit values for environmental safe concentrations of pollutants in the ambient air of specially protected natural areas, individual natural complexes and parts of specially protected natural areas', No. 5 of 24.01.2011.
Soil and Subsurface
<ol style="list-style-type: none"> 12. Land Code of the Republic of Belarus, Law No. 425-Z of 23.07.2008. 13. Subsurface Code of the Republic of Belarus, Law No. 406-Z of 14.07.2008. 14. GOST 17.4.3.04-85. Environmental protection. Soil. General requirements for control and protection from pollution. 15. GOST 17.4.3.02-85. Environmental protection. Soil. Requirements for conservation of fertile topsoil during execution of earth-moving work. 16. GOST 17.5.3.04-83. Environmental protection. Land. General reclamation and rehabilitation requirements. 17. Resolution of the Chief Sanitary Inspector of the Republic of Belarus 'On the approval of

<p>health (hygiene) standards 2.1.7.12-1-2004: Maximum permissible concentrations (MPC) and approximate permissible concentrations (APC) of chemical substances in soil', No. 28 of 25.02.2004.</p> <p>18. Resolution of the Ministry of Healthcare 'On the approval of the health standard for 'Approximate permissible concentration of ammonium nitrogen in soil for all land categories', No. 1 of 04.01.2014.</p> <p>19. Resolution of the Ministry of Healthcare 'On the approval of the limit values for the maximum permissible levels of total mercury and arsenic in soil of different functional areas within settlements', No. 107 of 04.08.2010.</p> <p>20. Resolution of the Ministry of Healthcare 'On the approval of the limit values for the maximum permissible levels of active forms of nickel, copper and total lead in soil of different functional areas within settlements', No. 125 of 19.11.2009.</p> <p>21. Resolution of the Ministry of Healthcare 'On the approval of the health standards for maximum permissible levels of active forms of zinc, chromium, and cadmium in soil of different functional areas within settlements, in land areas designated for use by industry, transport, communication, energy, defence or other purposes', No. 187 of 06.11.2008.</p> <p>22. Health standards. 12.03.2012 No. 17/1. Maximum permissible levels of petroleum products in soil for different land categories.</p> <p>23. Order of the State Committee on Land Resources, Geodesy and Cartography 'On the approval of the Regulations on the procedure for the handover of rehabilitated land plots to land owners and land users by economic entities engaged in extraction of minerals and peat or in geological exploration, survey and other works associated with disturbance of soil cover', No. 22 of 25.04.1997.</p>
Surface Water and Groundwater
<p>24. Water Code of the Republic of Belarus, Law No. 149-Z of 30.04.2014.</p> <p>25. STB 17.06.03-01-2008. Environmental protection and management of natural resources. Hydrosphere. Protection of surface waters from pollution. General requirements.</p> <p>26. STB 17.1.3.06-2006. Environmental protection. Hydrosphere. Protection of surface waters from pollution. General requirements.</p> <p>27. SanPiN³³ 2.1.2.12-33-2005. Health requirements for protection of surface water from pollution.</p> <p>28. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the introduction of water quality standards for surface water bodies', No. 13 of 30.03.2015.</p> <p>29. Resolution of the Ministry of health of the Republic of Belarus of 05.12.2016 № 122 "On approval of sanitary norms and rules "Requirements to the keeping of the surface water bodies in terms of their recreational use," hygienic standard "valid values for the safety indicators of water from surface water bodies for recreational use" and a recognition of becoming invalid for the resolution of the Ministry of health of the Republic of Belarus of December 30, 2008 No. 238.</p> <p>30. Health (hygiene) standards GN 2.1.5.10-20-2003. Approximate permissible levels (APL) of chemical substances in the water of water bodies used for domestic and drinking water supply and recreational purposes.</p> <p>31. GN 2.1.5.10-21-2003. Maximum permissible concentrations (MPC) of chemical substances in the water of water bodies used for domestic and drinking water supply and recreational purposes.</p> <p>32. GN 2.1.5.10-29-2003. Maximum permissible concentrations (MPC) and Approximate permissible levels (APL) of chemical substances in the water of water bodies used for domestic and drinking water supply and recreational purposes.</p>
Flora and fauna, specially protected animal and plant species
<p>33. Law 'On Fauna', No. 257-Z of 10.07.2007.</p>

³³ Sanitary Regulations and Standards

34. Law 'On Flora, No. 205-Z of 14.06.2003.
35. Resolution of the Council of Ministers of Belarus 'On certain aspects of management of wild animals and plants', No. 638 of 18.05.2009.
36. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the approval of the lists of rare and endangered species of wild animals and plants that will be included into the Red Book of the Republic of Belarus', No. 26 of 09.06.2014.
37. Resolution of the Council of Ministers of Belarus 'On certain aspects of management of wild plants', No. 1426 of 25.10.2011.
38. Resolution of the Council of Ministers of Belarus 'On the approval of the Regulations on the procedure for the estimation and payment of compensations', No. 168 of 07.02.2008.
39. TKP 17.05-01-2014 (02120). Environmental protection and management of natural resources. Flora. Regulations for the protection of wild plant species listed in the Red Book of the Republic of Belarus, including habitats of these plants.
40. TKP 17.07-01-2014 (02120). Environmental protection and management of natural resources. Fauna. Regulations for the protection of wildlife species listed in the Red Book of the Republic of Belarus, including habitats of these animals.
Specially Protected Natural Areas
41. Law 'On Specially Protected Natural Areas', No. 3335-XII of 20.10.1994.
42. Resolution of the Council of Ministers of Belarus 'On the approval of the Regulations on the procedure for preparation of applications for declaration, transformation and termination of specially protected natural areas', No. 1657 of 04.11.2008.
43. Resolution of the Council of Ministers of Belarus 'On the expansion of the system of specially protected natural areas, No. 649 of 02.07.2014.
44. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the approval of the guidelines for the assessment and introduction of limit values for permissible load on specially protected natural areas', No. 129 of 30.12.2008.
45. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the declaration of fine wood forest areas natural monuments of national importance', No. 81 of 08.10.2008.
46. Resolution of the Council of Ministers of Belarus on “On establishment of the Republican landscape reserve "Prilepsky" of 20.09.2000 No. 1451 (as amended by the resolutions of the Council of Ministers of Belarus dated 12.11.2008 No. 1697, dated 30.06.2012 № 611 of 21.10.2015 No. 884, of 30.09.2016 No. 793)
Radiation safety, noise and light impacts
47. Law 'On the Legal Status of Areas Affected by Radioactive Contamination from the Chernobyl Disaster', No. 385-Z of 26.05.2012.
48. Law 'On Radiation Safety of Population', No. 122-Z of 05.01.1998.
49. Resolution of the Council of Ministers of Belarus 'On the approval of the list of settlements and assets located within areas of radioactive contamination and on the annulment of some previous resolutions of the Council of Ministers', No. 9 of 11.01.2016.
50. Resolution of the Ministry of Healthcare 'On the approval of SanPiN 'Radiation safety requirements for the execution of work within areas of radioactive contamination' and on the amendments to Resolution of the Ministry of Healthcare No. 211 of 28.12.2012', No. 89 of 02.07.2015.
51. Resolution of the Ministry of Healthcare on the approval of SanPiN 'Radiation safety requirements' and GN 'Criteria for the assessment of radiation impact', No. 213 of 28.12.2012.
52. TKP 45-2.03-134-2009 (02250). Procedure for examination and criteria for the assessment of radiation safety of construction sites, buildings and structures.
53. Resolution of the Ministry of Healthcare on the approval of the sanitary standards, regulations, and health standards 'Noise at workplaces, in vehicles, inside residential and public buildings, and in residential areas' and on the annulment of certain resolutions of the

Chief Sanitary Inspector of the Republic of Belarus', No. 115 of 16.11.2011.
54. TKP 45-2.04-154-2009 (02250). Noise protection. Construction design standards.

Waste management regulations

Waste management requirements, including: waste categories, hazardous waste management procedures, requirements for landfills, development of waste management documents as part of the project documentation
<ol style="list-style-type: none"> 1. Law 'On Waste Management', No. 271-Z of 20.07.2007. 2. Resolution of the Council of Ministers of Belarus 'On certain waste management issues', No. 1104 of 23.07.2010. 3. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the approval and implementation of the technical regulations', No. 15-T of 22.12.2014. 4. Resolution of the Ministry of Natural Resources and Environmental Protection 'On the approval of the classification catalogue of waste generated in the Republic of Belarus', No. 85 of 08.11.2007. 5. Resolution of the Chief Sanitary Inspector of the Republic of Belarus 'On the approval of SanPiN 2.1.7.12-9-2006: Health requirements for design and operation of solid municipal waste landfills.', No. 68 of 29.05.2006. 6. Explanatory notes PZ-02 to construction standards SNB 1.03.02-96. Scope and procedure for the development of the Environmental Protection section of the design/project documentation.

Health and safety laws and regulations

General health and safety requirements
<ol style="list-style-type: none"> 1. Law 'On the Sanitary and Epidemiological Well-being of Population', No. 340-Z of 07.01.2012. 2. Law 'On Industrial Safety', No. 345-Z of 05.01.2016. 3. TKP 45-1.03-40-2006 (02250). Safety of labour in construction. General requirements. 4. Labour Code of the Republic of Belarus, Law No. 296-Z of 26.07.1999. 5. Law 'On Labour Protection', No. 356-Z of 23.06.2008.

Regulations concerning use and management land of different land categories

Requirements for/limitations of the use and management of land of different categories and conditions of acquisition of land plots for construction
<ol style="list-style-type: none"> 1. Land Code of the Republic of Belarus, Law No. 425-Z of 23.07.2008. 2. Decree of the President of the Republic of Belarus 'On withdrawal and allocation of land plots', No. 667 of 27.12.2007. 3. Decree of the President of the Republic of Belarus 'On certain measures for improvement of practices in relation to withdrawal, allocation and use of land plots', No. 431 of 23.09.2011. 4. Resolution of the Council of the Republic of the National Assembly of the Republic of Belarus on the Decree of the President of the Republic of Belarus No. 10 of 06.08.2009 'On creating additional conditions for investment activity in the Republic of Belarus', No 141-SR4/III of 22.10.2009.
Requirements for economic activity on forest lands: need for land re-categorisation, preparation of forest development plans, management of wood and cutting waste, rehabilitation, compensatory planting
<ol style="list-style-type: none"> 5. Forest Code of the Republic of Belarus, Law No. 332-Z of 24.12.2015. 6. Decree of the President of the Republic of Belarus 'On the approval of the Regulations on the procedure for classification of forests according to protection groups and categories,

transfer of forest from one protection group or category to another, and identification and establishing of specially designated protection forest areas', No. 364 of 07.07.2008.

7. Resolution of the Ministry of Forestry 'On the approval of regulations for radioactive contamination control of forests', No. 9 of 15.04.2011.
8. TKP 143-2008 (02080). Tree cutting regulations.
9. TKP 026-2006 (02080). Sustainable forest management and use. Sanitary regulations for forests.
10. TKP 047-2009 (02080). Sustainable forest management and use. Guidelines for restoration and cultivation of forests in the Republic of Belarus.

Protection and conservation of cultural heritage

Cultural heritage	
1.	Land Code of the Republic of Belarus, Law No. 425-Z of 23.07.2008.
2.	Culture Code of the Republic of Belarus, Law No. 413-Z of 20.07.2016 (will come into effect from 02.01.2017).
3.	Law 'On protection of cultural heritage of the Republic of Belarus', No. 98-Z of 09.01.2006.
4.	Resolution of the Council of Ministers of the Republic of Belarus 'On the status of historical and cultural values', No. 578 of 14.05.007.
5.	Resolution of the Council of Ministers of the Republic of Belarus 'On the approval of the Regulations on protection/ conservation of archaeological sites during execution of earth-moving and construction works, No. 651 of 22.05.2002.
6.	Resolution of the Ministry of Defence 'On the approval of the Procedure for the state control of war graves in the Republic of Belarus', No. 60 of 22.10.2003.

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