

PROJECT PRESENTATION



Building, financing, operation and maintenance of the
M-11 Moscow–St Petersburg highway at the 334–543 km
section.

August 2013, Moscow

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This project presentation has been compiled with the purpose of acquainting and providing market participants with information on the project under consideration in a timely manner as well as with the key project implementation conditions. Avtodor State Company reserves the right to amend the current presentation.

Introduction

The construction of the Moscow–St Petersburg highway at the 58–684 km section with subsequent toll operation is a major investment project that Russian Highways State Company (Avtodor) intends to implement within the framework of a public-private partnership.

At present, preparations are nearing completion to hold an open tender for the right to conclude a long-term investment agreement regarding Building, financing, operation and maintenance of the 6th section (334–543km) of the M-11 Moscow–St Petersburg in the Tver and Novgorod regions (first stage of construction).

Key project information

Location:	Tver and Novgorod regions
Construction length:	217.1km
Projected traffic*:	15,000–17,000 vehicles per day
Road category:	1A
Number of lanes:	4
Total project costs, including:	152.8 billion roubles (in nominal prices)
Customer costs	3.74 billion roubles
Cost of works under the agreement	149.1 billion roubles
- Government funding:	133.11 billion roubles
- Private investment	15.96 billion roubles
Contract type:	Long-term investment agreement
Contract term:	26 years
Tendering period:	2013
Construction period:	2014–2018

* The first three years of toll operation

Essential aspects of project implementation

The economic mechanism by which the project is to be implemented is similar to the concession agreement. In particular, the long-term investment agreement is a mixed civil contract which is regulated by the general provisions of the Russian law regarding civil agreements.

The agreement reflects the model of a life cycle contract, which is based on “purchasing” infrastructure services from the contractor and which stipulates pass-through liability of the contractor for the quality of the object throughout its life cycle. In addition:

- › The provisions of the long-term investment agreement stipulate that the contractor is obligated to prepare the construction area and reconstruct utility networks within the construction zone. The scope of specific work associated with the fulfilment of this obligation by the contractor under the long-term investment agreement does not include the expropriation of land plots for government needs, altering categories and types of the permitted use of such land plots, or registering ownership of these land plots on behalf of the Russian Federation. Such work falls within the scope of obligations of Avtodor SC, which is reflected in the current presentation, in the section covering the key terms of the long-term investment agreement.
- › The contractor’s obligations under the long-term investment agreement include the operation of the highway after the completion of construction, including the operation of the toll collection system (TCS) and adaptive traffic control system (ATCS). Toll collection operations (operator activities) is not the subject of the long-term agreement and will be carried out by Avtodor SC (by the operator it hires) outside the framework of the long-term investment agreement.

ALIGNMENT WITH INDUSTRY DEVELOPMENT STRATEGIC PLANS

The project is to be implemented in compliance with the following strategic planning documents for the transport industry and measures:

- › Transport Strategy of the Russian Federation until 2030 approved by Government Decree No. 1734-r dated 22 November 2008
- › State Program of the Russian Federation "Transport System Development" approved by Government Decree No. 2600-r dated 28 December 2012
- › Federal Targeted Program "Development of the Russian Transport System in 2010 through 2015"-No. 848 dated 5 December 2001 (as stipulated in a Government Decree dated 10 June 2013)
- › Avtodor's Long-Term Activity Program(2010–2020) endorsed by Government Decree No. 2146-r dated 31 December 2009 (as stipulated in Government Decree No. 672-r dated 24 April 2013)
- › Preparations for the FIFA 2018 World Cup Russia.

The construction of the Moscow–St Petersburg highway meets the priorities of the government, including those covered by the Strategy. The implementation of this ambitious project will directly help improve socioeconomic and transport conditions in accordance with the key benchmarks of state policy.

RELEVANCE TO THE MOSCOW–ST PETERSBURG HIGHWAY CONSTRUCTION PLANS

The Moscow–St Petersburg highway construction project comprises part of Avtodor's Long-Term Activity Program.

The project is part of the framework of national policies focusing on the creation of conditions conducive to economic growth, increased cross-industry competitiveness, and a better quality of life by building highway and expressway networks offering road users the desired traffic speed, reliability, safety, and affordable prices.

The need for the new M-11 Moscow–St Petersburg highway is determined by the following factors:

- › The projected thoroughfare will boast highly intensive road traffic as it will link Central Russia to a major transport hub, St Petersburg, as well as to Scandinavian seaports.
- › The existing highway, M-10 Russia, has insufficient lanes in most of its parts: the approach to Moscow has six lanes, while three to four lanes are available throughout most of the route with the motorway narrowing down to two lanes in some stretches. The approaches of the M-10 Russia motorway to Moscow and St Petersburg have reached the limit of their throughput capacity, which causes congestion and, consequently, an unjustified increase in transport costs and barriers to the economic development of load areas.
- › M-10 Russia highway passes through various settlements, which decreases the speed of traffic and, as a result, leads to transport and economic losses, environmental deterioration in inhabited areas, and lower traffic safety.
- › Expenses associated with the construction of detours are comparable with the costs of building a new highway due to the need to build a large number of transport junctions.

- › The M-10 highway does not meet such parameters as the horizontal curve radius, longitudinal inclination, sight distance, and a number of other requirements stipulated for category I highways.
- › The need to maintain proper transport and operating conditions of the existing federal highways throughout the whole period of operation in order to provide higher quality road infrastructure services.

The construction of the new highway started with the sections closest to areas with the highest transport burden. As of today, construction work is underway on the 15–58km section of the road following the signing of a concession agreement in line with Russian Federation Government Decree No. 511-r dated 24 April 2007. In late 2011, a long-term investment agreement was signed with a view to building the 258–334km section of the highway(a bypass around the city of Vyshny Volochyok) on the basis of a life cycle contract. In summer 2013, an open tender was announced for the right to finance, build, and operate the 543–684km section on a toll basis.

Implementation of the Moscow–St Petersburg motorway construction project will help achieve the following socioeconomic goals:

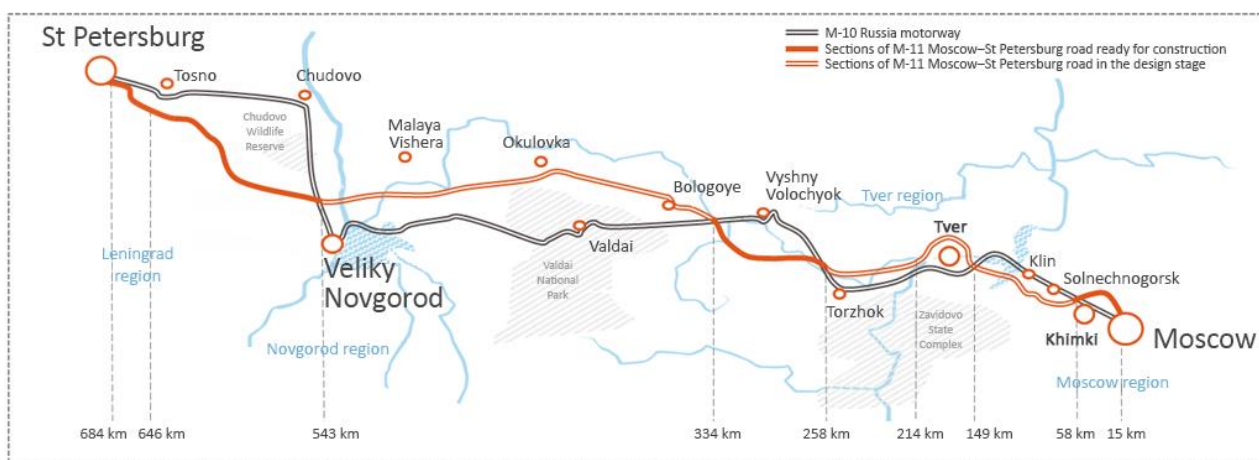
- › Create state-of-the-art efficient highway infrastructure connecting Moscow and St Petersburg, accelerate passenger and cargo traffic, and reduce transport costs throughout the economy
- › Improve the competitiveness of Russia’s transport system and transit capacities (the road will become a part of international transport corridors: the North–South corridor and Pan-European transport corridor IX).
- › Ameliorate conditions in the investment and budgetary sectors: improve the investment climate in the transport industry and attract additional investment resources to the infrastructure sector of the economy.
- › Achieve all-around improvement of congested areas:
 - Shift transit traffic passing through the street grid of Tver, Vyshny Volochyok and 52 more population centres outside city limits
 - Reduce adverse environmental effects by decreasing traffic on road sections passing through the street network of population centres
 - Create conditions conducive to developing industrial, recreational, and service facilities aligned with the socioeconomic development program in the areas adjacent to the highway.

BRIEF DESCRIPTION

Highway route

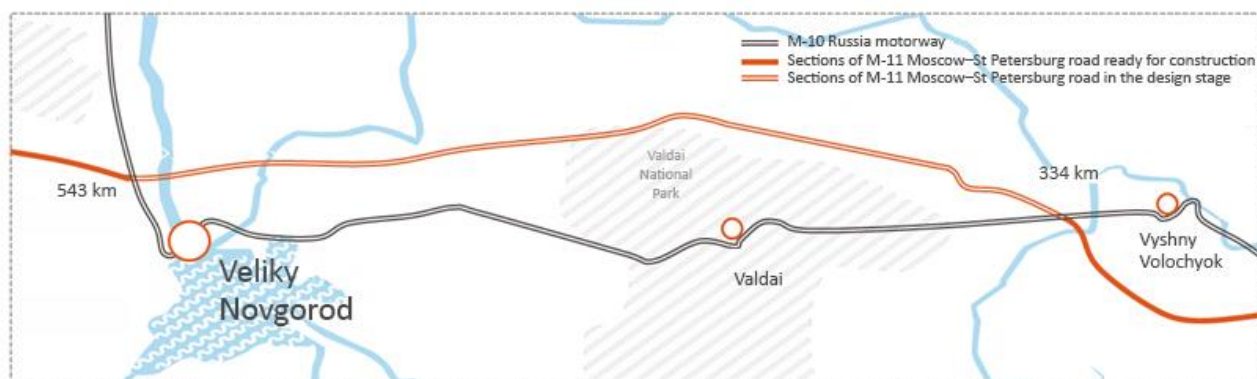
The 217.1-kilometre road will constitute part of the M-11 Moscow–St Petersburg highway, which is now under construction, linking the country's two biggest cities.

M-11 Moscow–St Petersburg



Section 6 (334–543km) of the road crosses the Tver region (Vyshny Volochyok and Bologoye districts) and Novgorod region (Okulovo, Malaya Vishera and Novgorod districts).

M-11 Moscow–St Petersburg, 334–543km



Technical characteristics



The design documentation specifies the beginning of the 6th section of the M-11 highway at 334km. The end of section 6 corresponds to 543km; the road is comprised of the following sections:

- › section 334–388km passes through the Bologoye district of the Tver region
- › section 389–475km passes through the Okulovo district of the Novgorod region
- › section 475–514km passes through the Malaya Vishera district of the Novgorod region
- › section 514–543 km passes through the Podberyozero rural settlement in the Novgorod district of the Novgorod region.

Design and budget estimates for the highway has been made. Design and budget estimates, including the accuracy of budget cost assessment, were endorsed by Glavgosekspertiza (report No. 1075-12/GGE-4081/04 dated 16/11/2012, No. 261-13/GGE-4081/10 dated 04/04/2013).

According to the report of Glavgosekspertiza, construction is to be financed by subsidies from the federal budget, money from of the Investment Fund of the Russian Federation and extra-budgetary funds.

More detailed technical documentation is available at the website of Avtodor SC in the section Technical documentation:
the M-11 Moscow–St Petersburg highway

http://www.russianhighways.ru/about/technical_documentation/m-11/

Technical characteristics

Key performance indicators of section 6:

Type of construction	New construction	
Road category	IA	
Length	217.1km	
Design speed	150 km/h	
Number of lanes	4	
Width of roadway	4 × 3.75m	
Width of the median	6m	
Width of the emergency lane	2.5m	
Width of shoulders	3.75m	
Pavement type	heavy-duty	
Surface type	SMA-20 asphalt concrete	
Bridges, units/m	42/4,148.82	
Overpasses within the body of the road, units/m	32/1,033.93	
Overpasses over the road, units/m	22/1876.35	
Overpasses within transport junctions, units/m	9/882.13	
Grade-separated junctions*	6 units	
Hard surface road area	5.097895 sq. km	
Length on a single-lane basis	1,359.44 km	
Projected traffic	2018	2039
	15,600 vehicles/day	30,468 vehicles/day
Term of construction	2014–2018	

* In accordance with the report of Glavgosekspertiza, by construction stage 7, a section of the transport junction at 548km was included in stage 6. The scope of stage 5 work includes the construction of three ramps (S-2 and S-6 to S-9) and three service ramps (TS-1 to TS-3 and TS-7) within the transport junction at 329km.

DESIGN FEATURES

The design documentation was prepared by the leading Russian highway and artificial structure design and survey institute Soyuzdorproekt.

The design decisions take into account the requirements imposed by technical specifications developed specifically for the project in question, technical specifications of the entities in charge of roads and engineering networks, as well as conditions set out in the register of claims of municipalities of the Novgorod and Tver regions.

Economic feasibility studies estimating projected traffic volume and structure were carried out to justify the key design decisions.

The design decisions are based on the technical decisions set out in Investment Feasibility Study No. 64-r enacted in the order of the Federal Road Agency on 28 February 2007.

The following factors were considered when designing various routing options jointly with Soyuzdorproekt:

- › Geological and hydrological conditions
- › The locations of environmental facilities and environmentally protected sites to minimise the environmental impact
- › Spatial urban planning provisions
- › The need to detour inhabited areas to ensure maximum traffic speed
- › The need to account for the possibility of attracting maximum transport flows and the gradual commissioning of road sections
- › How to protect the integrity of archaeological heritage sites and burial grounds.

After a comparison of the technical and economic parameters of various routing alternatives, the most appropriate option has been selected – one that fully satisfies the project objectives. It meets the requirements of ensuring minimum environmental impact, including on environmental centres, water conservation areas as well as natural reserves and wildlife sanctuaries, as it does not cross such territories. The proposed route is located in the vicinity of the existing M-10 Russia highway and ensures the preservation of the transport links established within Russian regions. It also accounts for future transport infrastructure developments.

CULTURAL HERITAGE AND ENVIRONMENTAL PROTECTION

After crossing the M-10 Russia highway at 325km, the M-11 highway continues to the east of the existing M-10 highway and bypasses Valdai National Park through wooded areas to the 385km mark (the border of the Tver and Novgorod regions). From the border, the motorway extends to the north-west, circumvents the town of Uglovka from the west, passes along the border of the Valdai National Park protected area, passes around the geomorphological natural monument Zaozerye fluvio-glacial ridge and Okulovo biological preserve of regional significance, and bypasses the protected areas around Mosno and Peretno lakes.

Cultural heritage

Avtodor attaches great importance to the preservation of historical sites in its highway network construction projects. A set of measures has been developed to this end to ensure the thorough examination of the areas allocated for prospective roads.

Archaeological excavations at the Poddubye-1 and Dubki-1 ancient settlement sites, which fall within the road construction area, are planned during the preparatory stage before the commencement of construction.

Environmental protection

The highway will mostly pass through non-inhabited areas. The design documentation for the projected road sections has undergone a public environmental evaluation, which confirmed the adequacy of the engineering protection measures proposed to mitigate the highway's adverse impact on public health, property and the environment. Environmental protection measures stipulated in the design documents have been prepared in line with today's ecological requirements stipulated in Russian laws.

The project design makes provisions for a number of measures aimed at mitigating the most adverse consequences of motorway construction activities, including:

- Installing noise screens and glass panels in places subject to high acoustic loads
- Installing local storm water run-off treatment facilities to prevent the contamination of the aquatic environment
- Installing artificial facilities to support animal migration.

KEY TECHNICAL SPECIFICATIONS

Preparation of the construction area

In accordance with the design documentation, the contractor will prepare the area for the highway's construction, including:

- › updating technical specifications and other documents
- › updating permits required to perform the work to prepare the construction areas
- › carrying out work for transferring engineering networks
- › work to free land plots from real estate and other objects interfering with construction
- › The list and scope of work for preparing the construction areas is to be established on the basis of design documentation and refined by the contractor in the process of developing engineering documentation.

Appropriation of land for permanent or temporary use

The road section under development crosses the territory of the Tver region in the Vyshny Volochyok and Bologoye districts and the Novgorod region in the Okulovo, Malaya Vishera and Novgorod districts, passing through lands of population centres, agricultural lands, industrial lands, forest reserve lands, and water reserve lands.

The choice of the route of the road section is approved by land users and stakeholders.

The total area of land appropriated for permanent use required for the construction of section 6 of the Moscow–St Petersburg highway is **1,679.2899 ha**; the area of temporarily appropriated land is **189.0714 ha**.

Technical characteristics

Reconstruction of utilities

Utilities within the construction zone of the highway and transport junctions are to be reconstructed.

The contractor will ensure the preparation of engineering documentation for the reconstruction of utility networks based on design documentation and engineering surveys provided to the contractor by Avtodor. All technical solutions for the removal of utilities are prepared based on the technical specifications of the utility owners and meet the requirements of existing regulatory documents.

Utilities to be rebuilt, including:	61 objects
communication cable	23
railway utilities	20
power lines	20

Soil conditions and road surfacing

The Moscow–St Petersburg highway is located within the category II construction and climatic zone, which is suitable for highway construction as far as soil conditions are concerned.

Considering the category of the road and its projected traffic intensity, there is a requirement for heavy-duty pavement surfaced with stone mastic asphalt concrete.

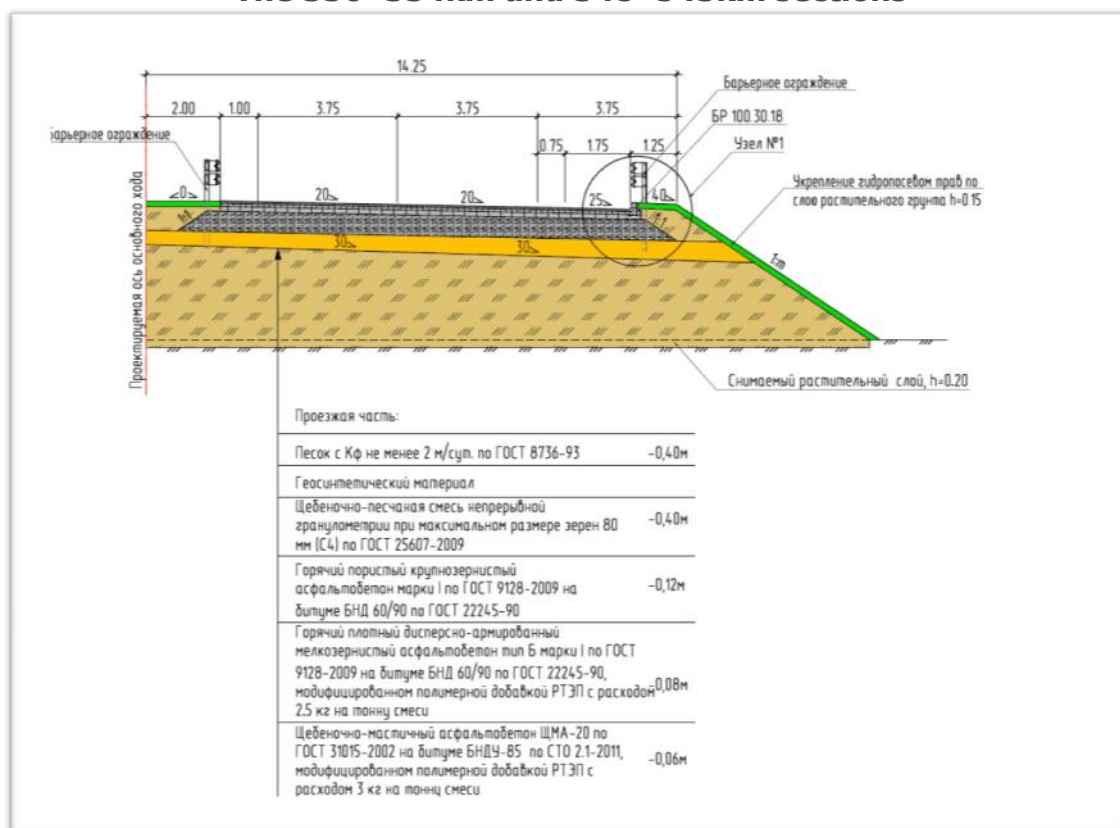
Engineering and geodetic survey results

The territory of the projected highway is located within a major geomorphologic area – the Russian (East European) Plain within the gently undulating and sometimes swampy Priilmskaya lowlands with absolute relief elevation of 18–50m and the northern ridges of the rolling moraine-covered Valdai Hills (absolute elevation of 300–346m). A typical feature of the terrain in the highway’s path is a combination of large saucer-shaped depressions on a moraine-covered plain filled with modern lake and wetland formations as well as large hills formed by sand, gravel, boulder, and pebble deposits.

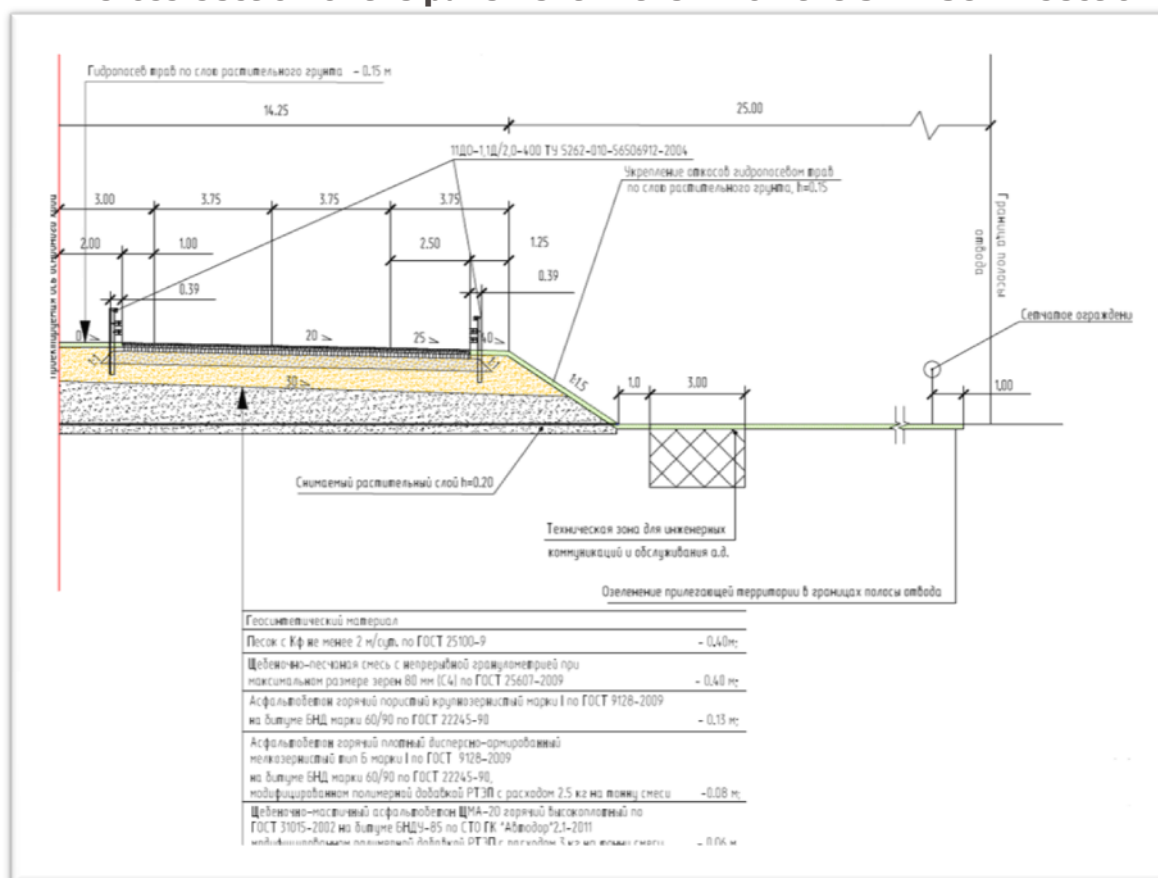
According to the results of the engineering and geological surveys, the underlying soils of the cut and fill subgrade consist of all kinds of dispersive soils, including: clay loams

and clay having a solid to a fluid consistency, medium sands, and peat with varying degrees of decomposition. In this regard, the project provides for types of cross sections, including for the section passing through marshes, and has measures to stabilise the foundation soil.

Cross-section of the pavement in the fill on The 330–334km and 348–543km sections



Cross-section of the pavement in the fill on the 347–38km section



Узел №1

Барьерное ограждение

Проектируемая ось основного хода

Укрепление гидросетью прог. по слое растительного грунта $h=0.15$

14.25

2.00 1.00 3.75 3.75 3.75

0.75 1.75 1.25

20% 20% 25% 4%

1:1 1:1 1:1

1.00

Проезжая часть:

Геосинтетический материал	
Песок с Кф не менее 2 м/сут. по ГОСТ 8736-93	-0.60м
Геосинтетический материал	
Щебенисто-песчаная смесь непрерывной гранулометрии при максимальном размере зерен 80 мм (С4) по ГОСТ 25607-2009	-0.52м
Горячий пористый крупнозернистый асфальтобетон марки I по ГОСТ 9128-2009 на битуме БНД 60/90 по ГОСТ 22245-90	-0.12м
Горячий плотный дисперсно-армированный мелкозернистый асфальтобетон тип Б марки I по ГОСТ 9128-2009 на битуме БНД 60/90 по ГОСТ 22245-90, модифицированном полимерной добавкой РТЭП с расходом 2.5 кг на тонну смеси	-0.08м
Щебенисто-мастичный асфальтобетон ШМА-20 по ГОСТ 31015-2002 на битуме БНД 9-85 по СТО 2.1-2011, модифицированном полимерной добавкой РТЭП с расходом 3 кг на тонну смеси	-0.06м

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Number of lanes

In accordance with the construction design of the Moscow–St Petersburg and the projected traffic intensity, **4 lanes** are projected for the 334–543km section.

Bridges and overpasses

The 6th section provides for the construction of 105 bridge structures.

Bridge structures, including:	105 bridges	8,201.85m
Bridges	42 bridges	4,148.82m
Flyoverswithin the body of the highway	32 bridges	1,033.93m
Flyoversover the highway	22 bridges	1,876.35m
Flyoverswithin transport junctions	9 bridges	882.13m

Summary table of bridge structures

All bridge structures, including large bridges, fall under the second criticality level (GOST R 54257-2010 "Reliability of Construction Structures and Foundations. Main Provisions and Requirements").

Bridge structures, length m	Number of bridges
Bridges up to 100m	32
Bridges 100–200m	7
Bridges over 200m	3
Flyoversup to 100m	54
Flyovers 100–200m	9

Small artificial structures

In order to establish surface drainage, the design provides for the installation of 223 reinforced concrete culverts with total length of 9,403.88m, including:

Culverts	223 units (length – 9,403.88m)
including:	
circular reinforced concrete pipes d=2.0	4 units (length – 173.32m)
circular reinforced concrete pipes d=1.5	214 units (length – 8,991.79m)
rectangular reinforced concrete pipes with 2.0 x 2.0m hole	1 unit (length – 40.54m)
rectangular reinforced concrete pipes with 4.0 x 2.5m hole	4 units (length– 198.23m)

Transport junctions

Transport junction at 329km	intersection with M-10 Russia highway near Kurskoye
Transport junction at 348km	intersection with Kuzhenkino–Bologoye motorway
Transport junction at 403km	intersection with Dolgiye Borody–Uglovka motorway
Transport junction at 443km	intersection with Kresttsy–Okulovka–Borovichy motorway
Transport junction at 524km	junction of Novoselitsy–Paportno motorway (IV category) with M-11 highway
Transport junction at 545km	intersection with M-10 Russia highway

Technical characteristics

Transport junction at 348km

Individual type of transport junction with a toll collection point on the right-side ramp with the installation of a roundabout at the junction to the existing road and the construction of two overpasses.

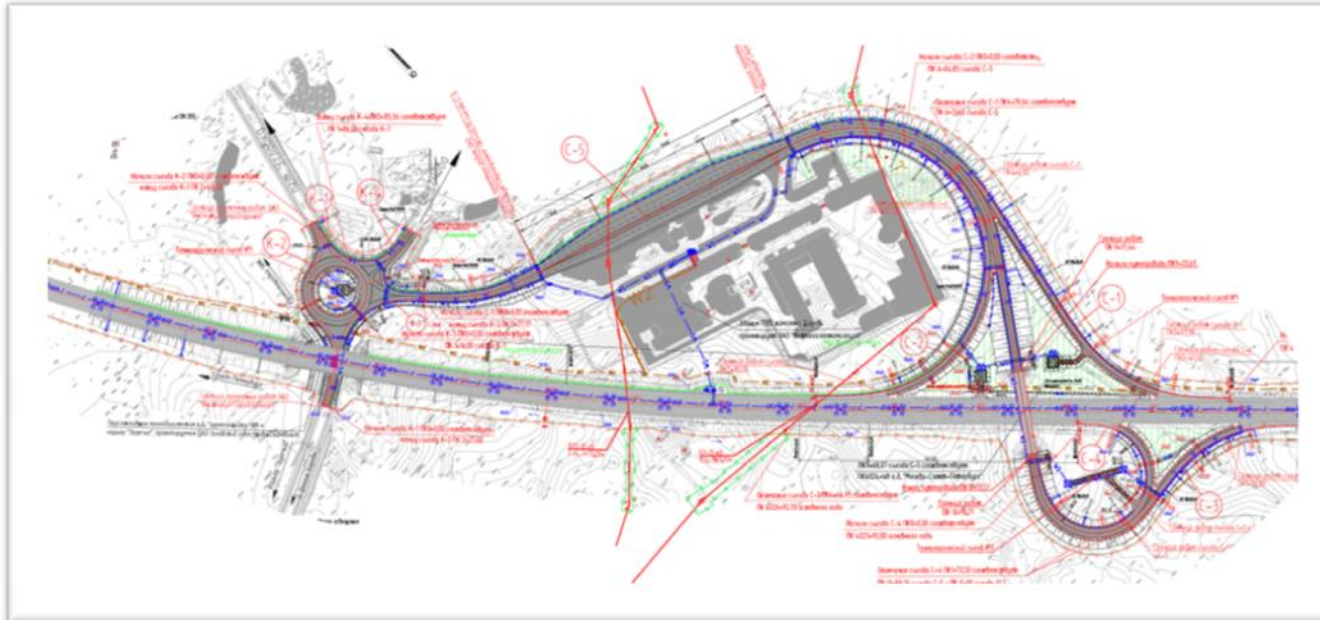


The layout of the transport junction has 4 ramps and one service ramp:

- Ramp C-1 directs traffic from St Petersburg through the toll booth to Bologoye or Kuzhenkino
- Ramp C-2 directs traffic from Bologoye and Kuzhenkino to Moscow
- Ramp C-3 directs traffic from Moscow through the toll booth to Bologoye or Kuzhenkino
- Ramp C-4 directs traffic from Bologoye and Kuzhenkino through the toll booth to St Petersburg.

Transport junction at 402km

On the section under consideration, the Dolgiye Borody–Uglovka motorway has two lanes with periodic changes in the number of lanes in each direction.

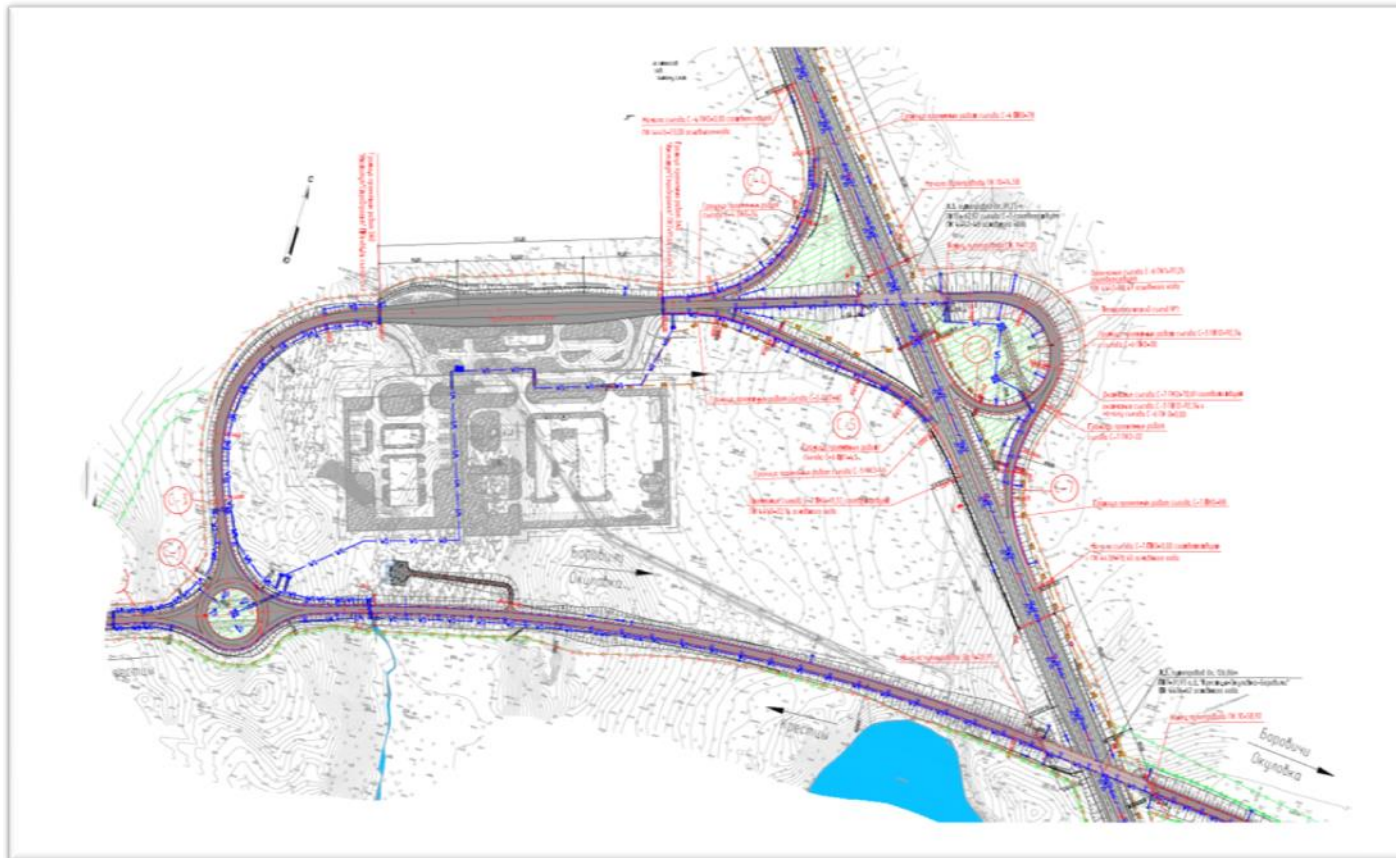


Purpose of transport junction ramps:

- Ramp C-1 provides a connection in the direction of Moscow–Dolgiye Borody–Stegnovo–Uglovka
- Ramp C-2 provides a connection in the direction of Dolgiye Borody–Stegnovo–Uglovka–St Petersburg
- Ramp C-3 serves traffic in the direction of Dolgiye Borody–Stegnovo–Uglovka–Moscow
- Ramp C-4 serves traffic in the direction of St Petersburg–Dolgiye Borody–Stegnovo–Uglovka
- Ramp C-5 serves the toll collection point and traffic in all directions
- Turnaround circle – serves traffic in any direction of Dolgiye Borody–Stegnovo–Uglovka as well as a place to turn around for transport vehicles servicing the M-11 highway
- Ramps K-1 – K-4 describe the circular traffic junction from Ramp C-5 and the Dolgiye Borody–Uglovka motorway.

Transport junction at 444km

An individual type of transport junction with a toll collection point is sited at the intersection of the projected highway with the Kresttsy–Okulovka–Borovichi motorway at 444km.



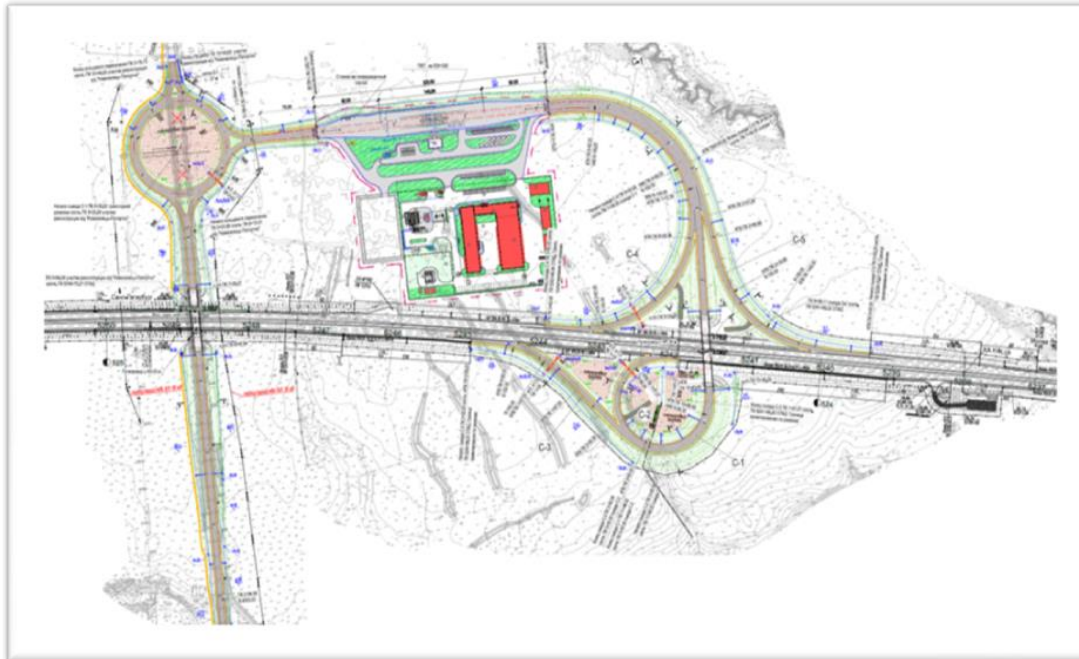
Purpose of transport junction ramps:

- › Ramp C-1 provides a roundabout at the intersection with the Kresttsy–Okulovka–Borovichi motorway with Ramp C-3 and also serves as a place to turn around for transport vehicles servicing the M-11 highway.
- › Ramp C-2 is for traffic between the roundabout on Ramp C-1 and the Kresttsy–Okulovka–Borovichi motorway in the direction of Kresttsy
- › Ramp C-3 provides a connection between the Moscow – St Petersburg highway and the Kresttsy–Okulovka–Borovichi motorway with a toll collection point located on the ramp
- › Ramp C-4 provides a connection in the direction of St Petersburg–Okulovka and St Petersburg–Kresttsy
- › Ramp C-5 provides a connection in the direction of Kresttsy–Moscow and Okulovka–Moscow
- › Ramp C-6 provides a connection in the direction of Kresttsy–St Petersburg and Okulovka–St Petersburg
- › Ramp C-7 provides a connection in the direction of Moscow–Okulovka and Moscow–Kresttsy

The total length of transport junction ramps is 4,270.31m, and the length of reconstructing the existing road is 1,560.2 m.

Transport junction at 524km

An individual type of transport junction combined with a roundabout interchange is provided in order to ensure a junction between the Novoselitsy–Paporotno motorway (category IV) and the M-11 highway(category I) and the siting of a toll collection point.



Purpose of transport junction ramps:

- › Ramp C-1 serves the toll collection point and traffic in all directions
- › Ramp C-2 provides a connection in the direction of Novoselitsy–Paporotno–Moscow
- › Ramp C-3 serves traffic in the direction of St Petersburg–Novoselitsy–Paporotno
- › Ramp C-4 serves traffic in the direction of Novoselitsy–Paporotno–St Petersburg
- › Ramp C-5 serves traffic in the direction of Moscow–Novoselitsy–Paporotno

A roundabout provides a junction between Ramp C-1 and the Novoselitsy–Paporotno motorway as well as a place for vehicles to turn around.

Technical characteristics

Traffic management equipment

All the necessary traffic safety and management measures are provided on the highway in accordance with GOST R 52289 (Traffic management facilities. Rules of application of traffic signs, markings, traffic lights, guardians and delineators).

Toll collection system

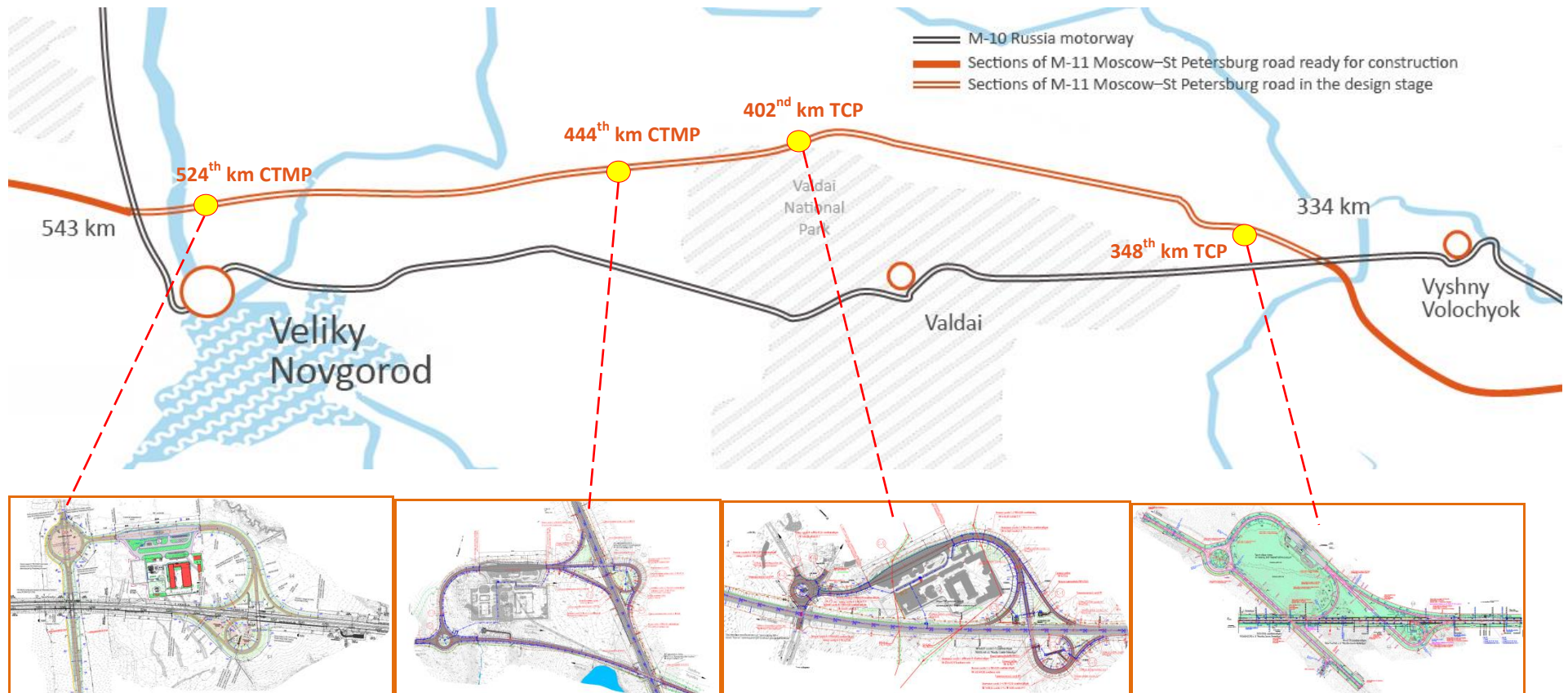
The design documentation stipulates the use of a closed toll collection system after the completion of construction works.

With a closed system, toll collection points (TCPs) are installed at all entries to and exits from a highway. Such TCPs will be equipped with entry and exit tollgates. Users will pay tolls upon exiting the road by presenting a travel ticket issued at the entry point. The amount of the toll is determined proportionally to the distance covered.

The contractor will be in charge of building the toll collection points, toll booths and canopies, and installing and setting up the equipment. The toll collection activities from highway users (operator activities) are not subject to the long-term investment agreement and will be performed by Avtodor (operator hired by Avtodor) outside the framework of the agreement.

The TCPs should be equipped to accept various forms of payment such as cash, bank cards and electronic payments (transponders, contactless smart cards, etc.). Tolls will be collected with the use of both stop-to-pay and free-float technologies, with several tollgates allocated exclusively for pass-through operations.

**At present the following TCPs are to be sited: at km 348 and km 402,
and also two central toll management points (CTMP): at 444km and 524km**



Long-term investment agreement

GENERAL PROVISIONS

Legal basis – a long-term investment agreement is one of the types of agreements on a public-private partnership. It is a mixed civil and legal agreement containing components of various types of agreements specified by the applicable laws of the Russian Federation (contracts for construction, highway maintenance, repair and overhaul, work and services related to the operation of the toll collection system and the adaptive traffic control system). The long-term investment agreement (as opposed to the concession agreement) has no special legal regulation in the form of a separate federal law and is governed by the general rules on contracts under the civil legislation of the Russian Federation.

The parties to the long-term agreement will be: Avtodor and the contractor, which will be determined based on the results of an open tender. Funding for the project shall be provided under the Long-Term Activities Programme of Avtodor (2010–2020).

The conditions for implementing the project stipulate that Avtodor and the contractor shall be obligated to co-finance the construction of the highway to the extent specified by the terms of the long-term investment agreement. Funding for the construction of the subject of the agreement shall be provided on behalf of Avtodor (government funding) by the federal budget subsidies granted to the company and on behalf of the contractor by its internal and borrowed funds (contractor's investment). Additionally, Avtodor will provide funding for the operation stage of the agreement's implementation from the income it receives from the collection of tolls.

Purpose of agreement – to build and ensure the reliable operation of a highway over the course of its life cycle in accordance with modern performance parameters as well as environmental and traffic safety requirements.

Object – 6th section of the Moscow–St Petersburg highway (334–543km), including the required design documentation:

- › **land plots** within the boundaries of the right of way and the structural components located on or under them
(roadway platform, road surface and similar components)
- › **road structures** that make up the engineering design of the highway
(protective road structures, artificial road structures, facilities, equipment components)
- › **transport infrastructure engineering structures**

(roadway platform, pavement, bridges, drainage structures, overpasses, culverts, traffic management equipment, and other road and traffic facilities).

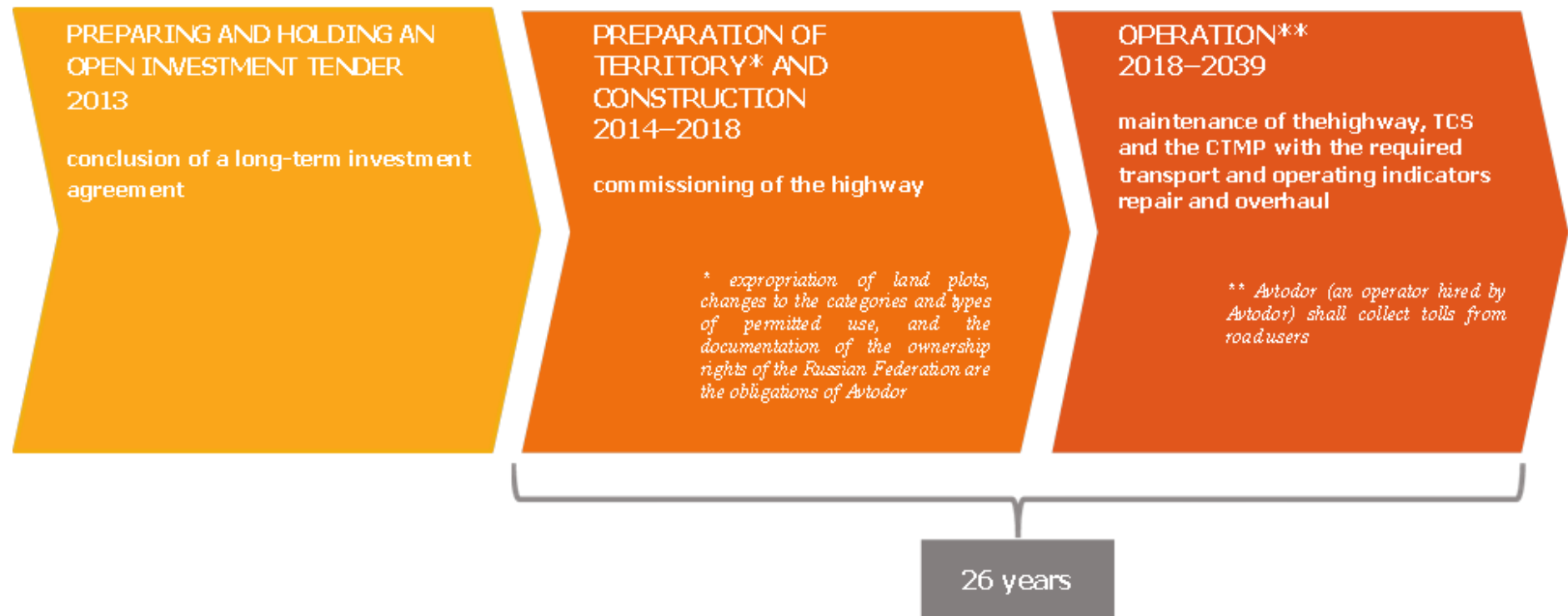
Duration of the agreement: 26 years from the date of the agreement

Property relations:

- ➔ **The Russian Federation owns the motorway**
- ➔ **The highway will be transferred to the trust management of Avtodor.**

All the agreement materials will be prepared in Russian.
Russian shall be regarded as the official language of the project.

Project implementation procedure



OBLIGATIONS OF THE CONTRACTOR

Under the long-term investment agreement, the contractor must ensure:

- › the performance of land surveying and cadastral work
- › the preparation of engineering documentation
- › the preparation of the construction site
- › the construction and commissioning of the highway no later than 1 May 2018
- › work and services to obtain all the necessary permits and approvals from government authorities, municipal authorities, and operating organisations to perform land surveying and cadastral work, prepare the construction site as well as build and commission the highway
- › the partial funding of the performance of work in the amount of 15.964 billion roubles.
- › the maintenance of the highway as well as repair and overhaul during operation
- › the highway's compliance with the requirements for maintenance and performance parameters as well as accessibility indicators during operation
- › the operation of TCS and CTMP equipment during the operation stage
- › the fulfilment of warranty obligations with respect to the highway following the termination of the agreement.

OBLIGATIONS OF THE STATE COMPANY

Under the long-term investment agreement, Avtodor must ensure:

- › the performance of a range of activities based on the results of the land surveying and cadastral work:
 - the transfer of documentation on the construction site layout to the contractor
 - the documentation of the ownership of the Russian Federation and the long-term lease rights of Avtodor with respect to the expropriated land plots
 - changes to the categories and types of permitted use of the land plots required for the construction and operation of the motorway
 - providing the contractor with access to the land plots to prepare the construction site as well as build and operate the highway
- › the acceptance of the land surveying and cadastral work performed by the contractor, work to prepare engineering documentation, the preparation of the construction site, construction and payment for this work
- › investment payments for the gradual reimbursement (repayment) of the contractor's investment during the investment stage of the agreement's implementation, including payment for the interest accrued on this investment
- › operating payments for the work/services involving the maintenance, repair, overhaul and operation of the highway (including the operation of TCS and the CTMP)
- › the transfer of documentation on the construction site layout to the contractor
- › the expropriation of land plots, including through purchase, for governmental or municipal needs
- › the documentation of the ownership of the Russian Federation and the long-term lease rights of Avtodor with respect to the expropriated land plots
- › changes to the categories and types of permitted use of the land plots required for the construction and operation of the highway
- › providing the contractor with access to the land plots to prepare the construction site as well as build and operate the highway

Commercial structure



The following phases of public support will be provided for the implementation of the project:

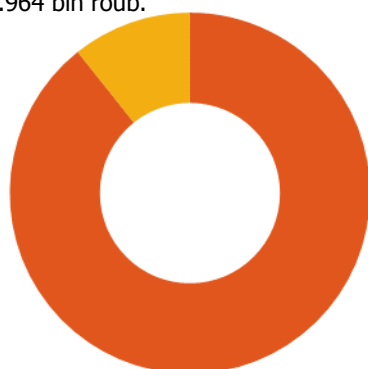
- Government financing during the motorway **construction** stage
- Operational and investment payments of Avtodor during the motorway's **operational** stage.

FINANCING. INVESTMENT STAGE

The maximum cost of work under the agreement during the investment stage will be **149.1 billion roubles** in the prices of the relevant years, including VAT. Funding for the construction of the motorway shall be provided by Avtodor and the contractor in the following proportion, respectively: **133.11 billion roubles** and **15.96 billion roubles**.

Initial tender conditions *

15.964 bln roub.

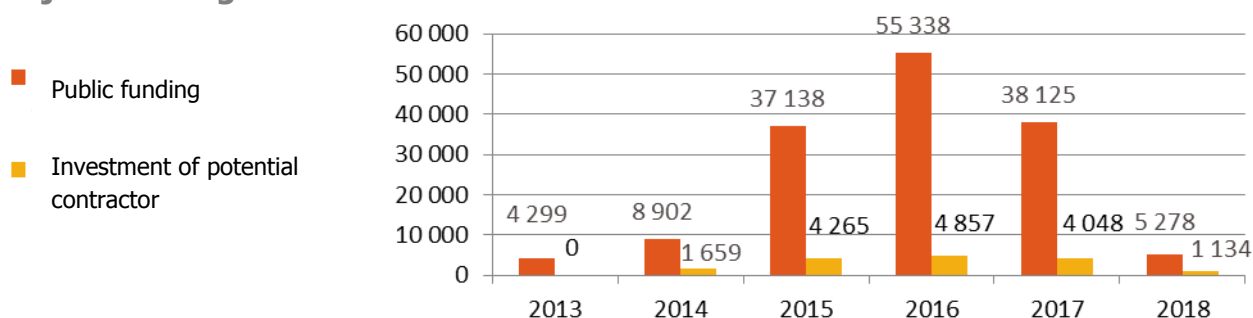


133.117 bln roubles.

Cost of work under the agreement at the investment stage = 149.1 billion roubles*

The public aid provided to support the construction of the highway will be paid to the contractor monthly based on the performance of the work by the contractor and its acceptance by Avtodor (bill of scope and cost of work).

Project funding structure



* In prices of the relevant years including VAT

Commercial structure

KEY PROJECT FINANCING PARAMETERS *

The payment by Avtodor as regards the repayment of investor (equity) funds was calculated based on the following assumptions:

Parameter	Value	Comments
Cost of work under agreement during investment stage:	149,081	
- Government financing	133,117	
- Contractor's investment	15,964	
including:		
- Borrowed funds	7,982	Basis for the irreducible investment payment
- Investor (equity) funds	7,982	Basis for the reducible investment payment
Deadline for the repayment of borrowed funds	10 years	
Deadline for the repayment of investor equity funds	21 years	
Average rate of return on investments of potential contractor	6.5% + CPI	Floating interest rate on return is determined taking into account the consumer price index for goods and services with a fixed premium of 6.5%
Including:		
Floating interest rate for the return on borrowed funds of a potential contractor	4.55% + CPI	Floating interest rate for the return on the borrowed funds of a potential contractor is determined taking into account the consumer price index for goods and services with a fixed premium of 4.55%
Floating interest rate for the return on the equity of a potential contractor	8.40 + CPI**	Floating interest rate for the return on the equity of a potential contractor is determined taking into account the consumer price index for goods and services with a fixed premium of 8.40%

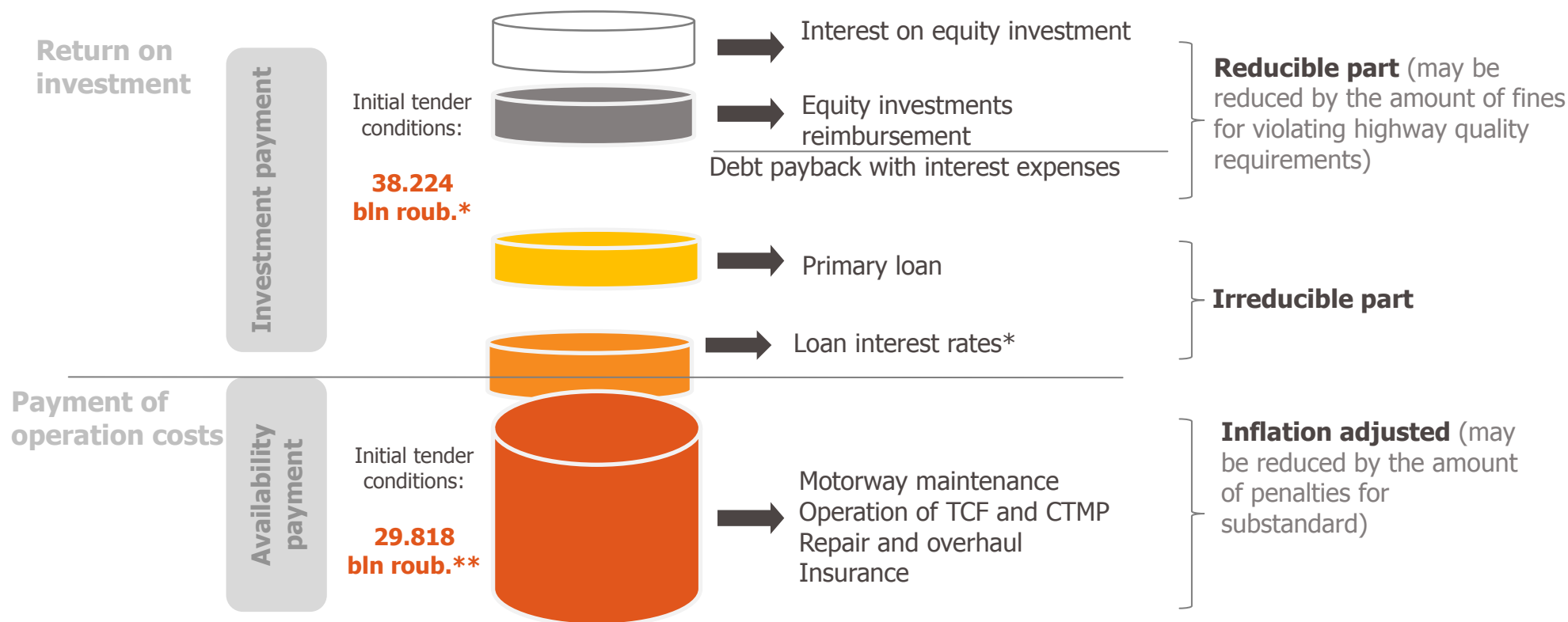
* To be determined at the tender

**8.4 = 4.55 + 3.85, where 4.55 – the premium, which is the tender criteria

PAYMENT UNDER AGREEMENT FOR OPERATION STAGE

Payment will be made by Avtodor and cover the following expenses of the contractor:

- the repayment and servicing of borrowed financing for the construction of the highway taking into account the return on the investment of equity and borrowed capital
- expenses on the equity of the highway



* Given that the project is structured around floating returns on financing engaged the borrowed financing (pegged to inflation rates), actual payments of primary loan interest rates on the principal of the debt and equity return will be adjusted to the difference between the projected and actual inflation rates

** Including insurance expenses. Indexed to CPI

FINANCING. OPERATIONAL STAGE

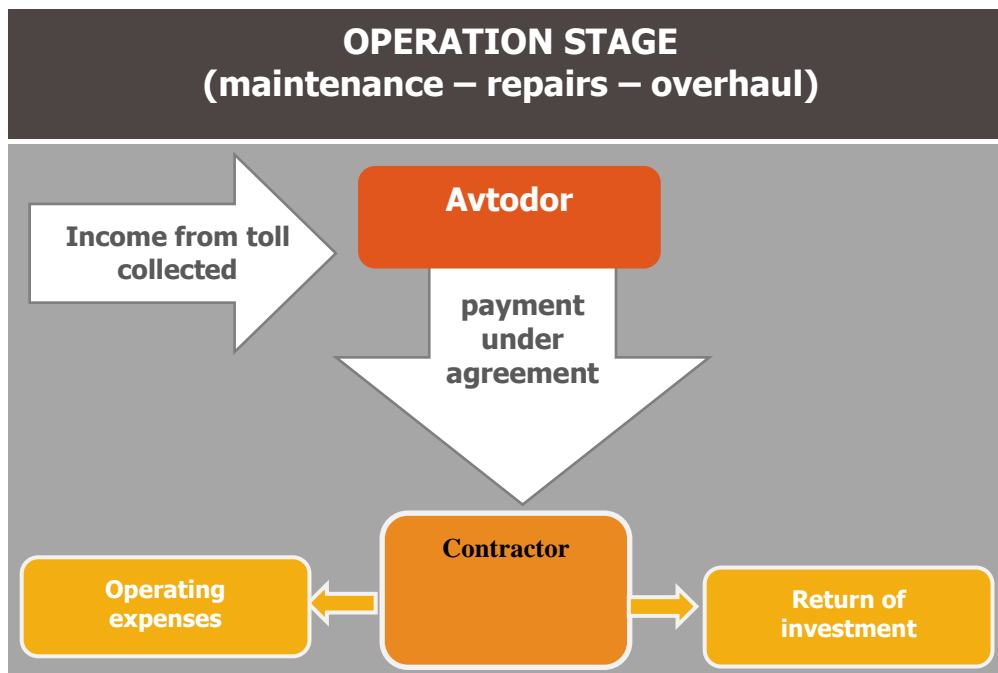
MECHANISM FOR PAYMENT BY THE STATE COMPANY DURING OPERATIONAL STAGE

Avtodor will make regular payments stipulated by the agreement during the operational stage. The state company's payment will consist of an availability payment* and an investment payment**.

Payments to the contractor will begin with the start of the implementation of the project's operational stage.

The amount of the actual payment by Avtodor will be determined taking into account the deductions from this payment in the event the potential contractor fails to fulfil the requirements stipulated by the agreement.

Financing– operation stage






* Covers expenses on highway maintenance and the operation of TCS and CTMP equipment

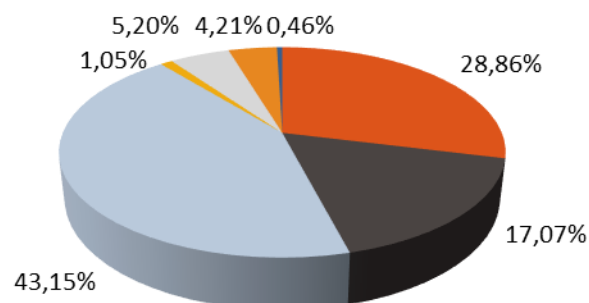
** Includes the repayment of investment borrowed by the potential contractor with return

OPERATION PAYMENT AND REPAIR PAYMENT

The operating payment and payment for repair are components of the payment by Avtodor covering the potential contractor's expenses on the operation, repair, and overhaul of the motorway.

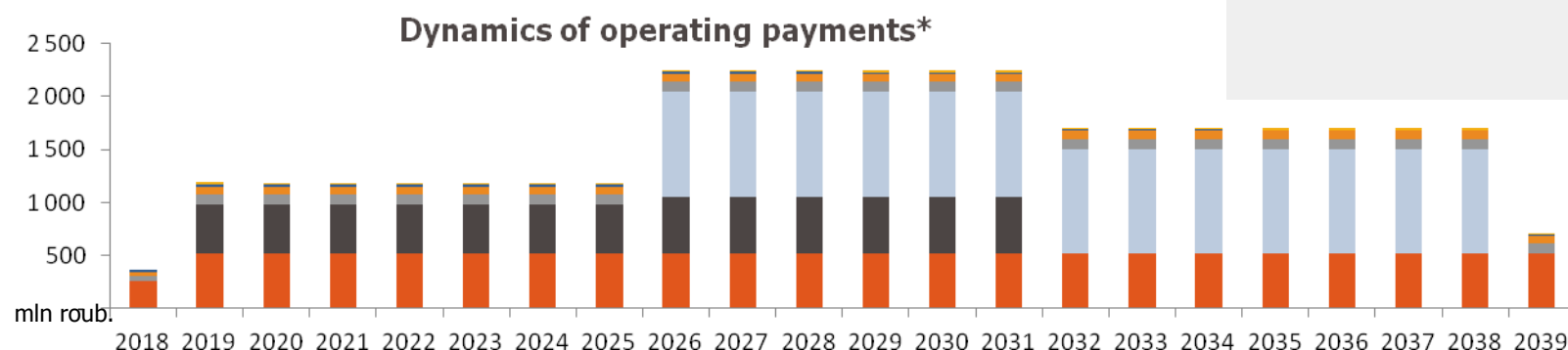
→ The amount of **29.818 billion roubles** is set as the initial value excluding VAT in the prices of the 1st quarter of 2013.

-  Highway maintenance
-  Highway repair
-  Highway overhaul



The initial conditions of the long-term investment agreement call for periodic payments for repair and overhaul, including until the scheduled time for such repair.

Under the conditions for the long-term investment agreement, the contractor shall be granted bank guarantees to ensure its obligations for repairs within the scheduled period and the quality of such work.



The conditions of the agreement provide for an increase in highway maintenance expenses given an increase in traffic.

Actual average daily traffic intensity on the motorway*, vehicles per day

r_{p1}

20,000 – 50,000

1.055

over 50,000

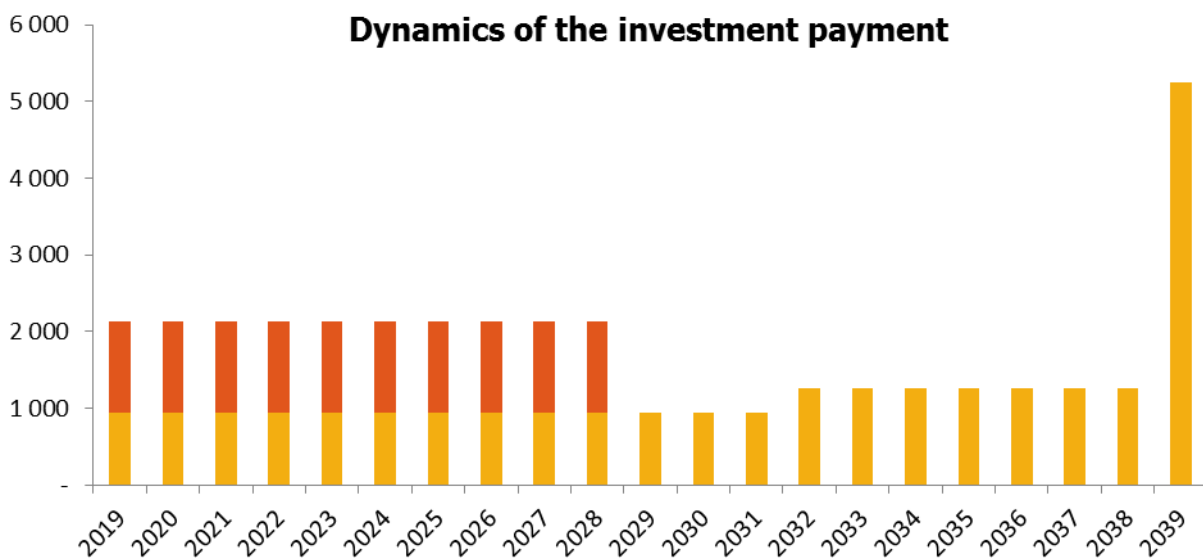
1.110

* Actual average daily traffic intensity on the motorway is determined based on $r - 1^{\text{st}}$ operating year of the agreement's implementation

INVESTMENT PAYMENT

The investment payment is a component of the payment of Avtodor to cover the repayment and servicing of the funds of a potential contractor of the project during the investment stage of the agreement's implementation.

- The total investment payment includes the reducible and irreducible part of the investment payment taking into the return thereon.
- The investment payment takes into account capitalised interest on a potential contractor's investment for the construction period upon their hiring for the project during the investment stage of the agreement's implementation.
- The investment of a potential contractor under the agreement is fixed and may not be adjusted in the process of the open investment tender.
- The base amount of the investment payment is **38.224 billion roubles** (not subject to VAT) for the entire period of the long-term investment agreement in the prices of the relevant years.



System for accruing penalty points / reducing the amount of the operating and/or investment payment

Penalty points shall be accrued in addition to a proportionate reduction in operating and/or investment payments for the contractor's violation of/failure to comply with the requirements established by Avtodor for the highway's transport accessibility, transport and operational performance, maintenance, and operation.

Violation of the requirements for the maintenance and operation of the motorway

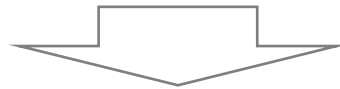
- Violation of the requirements for the maintenance of the motorway
- Violation of the requirements for the maintenance and operation of the TCS and/or CTMP



Reduction in operating payment

Violation of the requirements for the transport accessibility and operational performance of the highway

- Failure to comply with transport accessibility indicators
- Violation of transport and operational performance of the motorway, in particular the evenness (longitudinal/transverse), the road traction coefficient, and the durability of the pavement
- Violation of transport and operational performance of artificial structures, in particular: compliance with the design load class, longitudinal strength, defects and deterioration of junctions, and expansion of joints



Reduction in investment Payment








Risk sharing




The advantages of using the public-private partnership model for the project's implementation include the optimal, balanced, and efficient distribution of the risks associated with implementing the project between the parties to the long-term investment agreement.

The optimal distribution of risks is based on the application of a principle that assigns all risks out of the contractor's control or purview to Avtodor, which is serving as a public partner in this project.

The implementation of the project based on the mechanism of the long-term investment agreement allows for reducing the amount of the contractor's investment, which consequently reduces its financial risks.

Key risk associated with the project:

Type of risk	Risk definition	Contract or	State company
Design risks	Probability of errors in construction design solutions and plans		
Risk of the late completion of work	Increase in the construction period		
Risk of an increase in construction costs	Actual project costs exceeding the estimates during the construction of the highway, including due to a rise in the cost of construction materials or the bad faith of contractor organisations		
Environmental risks	Environmental damage as a result of the contractor's actions during the construction and operation of the highway		
	Environmental risks associated with engineering documentation		
Maintenance risks	Increase in the actual cost of the highway's maintenance and repair due to changes in the cost of materials and certain types of work during the construction period		

Risks of change in demand for the use of the highway	Decrease / increase in demand for the use of the highway compared with the forecast		
Risk of the bankruptcy or insolvency of the bank providing a guarantee on the contractor's obligations under the long-term investment agreement	Bankruptcy / total or partial insolvency of the bank providing a bank guarantee which took place during construction and/or operation		
Risks of the need to change the performance indicators of highway during the operating process	Expansion in the highway or junctions, or the modernisation of TCS equipment		

Regulatory framework

The tender is carried out in compliance with Federal Law No. 223-FZ dated 18 July 2011 "On the Procurement of Goods, Work, and Services by Certain Types of Legal Entities", the procurement procedure of Avtodor, and the decision of the Management Board of Avtodor to approve the tender documentation and hold a tender on its basis.

Amendments to tender documentation

Avtodor may make amendments to the tender documentation at any time prior to the deadline for submitting tender applications.

In addition, Avtodor may publish information on the tender procedure in the media and on the company's website.

	Tender criteria features	Amount	Estimated change to the initial criteria (for quantitative criteria)	Weighted values of tender criteria
Qualitative criteria	Organisational and technical proposals for the implementation of the investment project	-		0.3
	Construction cost of highway	149.1 billion roubles in prices of the relevant years	Decrease	0.3
Quantitative criteria	Base total operation and repair payment during operation stage	29.8 billion roubles in 2013 prices	Decrease	0.15
	Base premium to inflation **	4.55 p.p.	Decrease	0.15
	Qualification of tender participant	-	Increase	0.1
	Total			1.0

The winner of the tender will be granted the right to sign a long-term investment agreement with the contractor on the conditions of its tender bid as long as it meets the requirements of the tender documentation

* In accordance with an expert evaluation

** Under the conditions of the long-term investment agreement, yield pegged to inflation will accrue on the contractor's investment. The contractor's investment is divided into 2 equal parts. The first part is interpreted as investment financed by borrowed funds on which yield accrues in the amount of inflation + premium. The second part is interpreted as investment financed by the contractor's internal funds on which yield accrues in the amount of inflation + premium + 3.85%.

Preliminary project schedule

Implementation dates	Key implementation stages	Implementation period (calendar days)
01.08.2013	Posting of the draft tender documentation on the website of the Ministry of Transport	1
12.08.2013	Conducting public hearings concerning the tender conditions and draft tender documentation	1
16.08.2013	Sending a report on the results of the public debates to the Government of the Russian Federation	1
17.08.2013 – 30.08.2013	Coordination and approval of tender documentation by the decision of the Management Board of Avtodor taking into account the amendments based on the public debates	14
30.08.2013	Tender announcement	1
30.08.2013 – 30.09.2013	Bids provision by the tender participants	30
30.09.2013	Opening of envelopes with tender bids	1
30.09.2013 – 31.10.2013	Consideration and evaluation of tender bids and summary of tender results	32
31.10.2013 – 25.11.2013	Approval by Supervisory Board of Avtodor of the conclusion on a long-term investment agreement with the preferred bidder (major transaction)	26
25.11.2013	Signing of the long-term investment agreement with Avtodor	4
2014 - 2018	Construction period	
2018 -2039	Operating period	

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