





SC Institute Giprostroymost – Saint Petersburg Since 1968

A rational engineering solution is at the heart of all projects developed and implemented by the Institute. Combining the expertise of both structure and technology developers, the Institute solidified its leading position among its peers in the industry.

Over the 55 years, the Institute Giprostroymost–St. Petersburg contributed to construction and reconstruction of over 750 infrastructural, civil and industrial facilities. Hi-tech structures designed by the Institute team are spread over various regions of Russia and abroad – in Vietnam, Latvia, Finland, Kazakhstan & Turkmenistan.

SC Institute Giprostroymost – St. Petersburg is widely recognized for solution of complex challenges with a lot of ingenuity involved. For each project development innovative solutions are implemented, which then often become the mainstay of transport infrastructure construction. Such an innovative approach produces truly unique structures that combine cutting-edge technologies, economic effectiveness and a distinctive architectural appearance.



BRIDGE CROSSING OVER THE LENA RIVER, YAKUTSK REGION, YAKUTIA SOHA REPUBLIC, RF



Being designed bridge crossing should be constant comfortable link with Federal Motorway 'Vilui' with highways 'Lena' and 'Kolima'. This bridge should ensure the shortest connection of Eastern Siberia with Sea of Ohotsk ports via Irkutsk up to Magadan City.

Total length of new cable stayed bridge over the Lena River with approaches is considered as 14.7 kilometers.

- bridge length 3.1 km;
- width of the bridge 21 m;
- clearance dimension- 2 x 3.75 m;
- pylon height from carriageway level 240 m, 160 m;
- lanes quantity 2 pcs;
- navigation passage dimension 2 x 140 m;
- clearance height- 17 m.

WORK ON THE PROJECT

Project Documentation Stage;

- general design;
- fulfillment engineering survey;
- development carriageway;
- development main structures;
- development technology of construction;
- development SAC&D;
- development;

passage Federal Expertise

Work Documentation Stage.

CLIENT

VIS Ltd

DESIGN STAGE

2019 - 2024

CONSTRUCTION STAGE

2023 – 2028

BRIDGE CROSSING OVER THE KALININGRAD BAY



Being designed construction site allows us to arrange new Ring Road via Southern and Northern highways connection around Kaliningrad as well as helps us to downsize the distance between existed settlements by 40 km.

Project realization shall put together transportation flows of North-West plus direct them towards Highway – 1A 'Riga – Kaliningrad – Danzig', which should improve transportation status quo of the city as well as the above plan can remove heavy trucks out of that cluttered downtown. Subsequent to project completion urban budget must be in much better condition due to extra taxes flow.

New bridge crossing should connect settlements Kosmodemiyanskogo and Shosseini. Total length of road infrastructure including Pregel River is considered as 15 km long. Speedy 4 – lane highway should be part of Ring Road within popular recreational zone.

TECHNICAL FEATURES

- total length of bridge crossing 2,684 m;
- spans solid reinforced concrete;
- total length of motorway 8,075 km;
- road class IB;
- lanes number 4 pcs.;
- width of earthwork 27.5 m;
- carriageway width 2×7.5 m.

SITES OF ROAD CONSTRUCTION

- technological flyovers 4 pcs.;
- approach flyovers 2 pcs.;
- bridges 1 pcs.

WORK ON THE PROJECT

Project Documentation Stage:

- general design;
- engineering survey;
- carriageway design;
- design of main structures;

- construction technology development;
- SAC&D with DD preparation;
- estimation paperwork development;
- passage of environmental expertise;
- passage of Government expertise.

Work Documentation Stage.

CLIENT

000 VIS

DESIGN STAGE

2019 - 2023

CONSTRUCTION STAGE

SPEEDY HIGHWAY M - 12 **'MOSCOW - NIZHNIY NOVGOROD - KAZAN'**



This 800 km long highway should provide that essential link between the territories of the Moscow, Vladimir and Nizhny Novgorod regions as well as toward the republics of Chuvash plus Tatarstan. M-12 is considered as a main part of the International Transportation Corridor 'Europe - Western China'.

TECHNICAL FEATURES

- road class IB
- designated speed 120 km/h
- road length per Stage 6 132 km
- road length per Stage 7 82 km
- road length per Stage 8 70 km
- lane width 3.75 m
- lanes quantity 4 (2 per each direction)

Stage 7 including structures:

- bridges;
- flyovers;
- wildlife crossings;
- technological approaches 35 pcs.;
- sound barriers 13.023 km

STAGE 8- 663 - 729 KM:

It should run from the intersection with the R-241 Federal Highway 'Kazan – Buinsk – Ulyanovsk' to the traffic circle of 'Sorochye Gory – Shali local highway '. The most important event should be the construction of a new bridge crossing over the Volga River, which shall make it more comfortable for motorists regarding status of northern bypass of Kazan, as well as significant unload of existing ferry crossings.

Stage 8 including structures:

This Stage covers artificial structures counting bridges and overpasses. Part of this route with the entire 24 km coincides with a bypass of Kazan, which is being constructed.

STAGE 6 - 454 -586 KM

Our road should pass partly through the Nizhny Novgorod Region with a certain extent through the territory of the Chuvash Republic. We designed the bridge crossing over the Sura River with challenging length of 930.5 m.

STAGE 7 - 586 -663 KM

This Stage is included the passage through the territory of the Chuvash Republic and the Republic of Tatarstan, from the intersection with busy A-151 Federal Highway 'Tsivilsk – Ulyanovsk' to the junction with the R-241 Federal Highway 'Kazan – Buinsk – Ulyanovsk' passes through the territory of two municipal districts of the Chuvash Republic including three municipal districts of the Republic of Tatarstan with a bypass of nearest settlements.

SCOPE OF WORK

- Stages DD and WD:
- General Design:
- Design and survey works;
- DD and WD development;
- echnical Supervision.

CLIENT

Federal Enterprise 'Russian Motorways', 'Avtodor Ltd'

DESIGN STAGE

2021

CONSTRUCTION STAGE

2024

MOTORWAY A-289



PROJECT DESCRIPTION

Construction and reconstruction of Motorway A-289 Krasnodar - Slavyansk - Temryuk - Motorway A-290 Novorossiysk - Kerch is composed of the old road renovation within area of Marianskaya Station up to link of M-4 Don with new detour of Krasnodar City to A-289 and next to new direction toward South around settlements up to transportation interchanges of Beliy Village of the road A-290 Novorossiysk - Kerch.

Our motorway should be completed with curves of large diameters with optimal slopes design plus vertical curves within areas of sophisticated roadway profile to ensure comfortable driving of motorists and smooth intersections with existing roads on various levels.

TWO STAGES OF CONSTRUCTION

- length of reconstruction lot 4.625 km
- length of new construction 114,552 km
- total motorway length 119,177 km

SITES OF ROAD CONSTRUCTION

- artificial structures including bridge crossings, flyovers and pedestrian crossings – 56 pcs.
- soundproof screens 6.3 km

WORK ON THE PROJECT

- general design
- set of design and survey works
- engineering and geodetic survey





- engineering and geological survey engineering and hydro-meteorological survey
- environment survey
- removal of explosive materials
- archeological and cultural survey
- intersections survey
- buildings and structures survey within designated lot
- documentation preparation
- documentation design and issue
- construction site technical supervision

CLIENT

Federal Road Administration Taman

GENERAL CONTRACTOR

000 Transstroymechanizasiya

DESIGN PERIOD

2021

CONSTRUCTION PERIOD

2024





TRANSPORTATION INTERCHANGE MKAD ON THE INTERSECTION OF OSTASHKOVSKOE SHOSSE

PROJECT DESCRIPTION

Transportation interchange is located within North-East area of Severo-Medvedkovo District of Moscow about 90-91 km from MKAD. Type of works: new construction and reconstruction. The Project includes reconstruction of Ostashkovskoe Shosse Transportation Interchange and MKAD with exits and pedestrian crossings.

The following measures should be completed:

- MKAD transportation flow separation together with exits flows from adjacent roadways;
- Spots of left turn transportation flows intersections elimination within cloverleaf types transport junctions;
- Arrangement of two extra left turn exits.

SITES OF ROAD CONSTRUCTION

- 2 side roads along MKAD;
- 10 exits;
- 4 viaducts;
- 1 pedestrian crossing.

SIDE ROAD P1

- one way, two way and three way road of 1,021. 8 m,
- flyover 119.5 m;
- material RC ;
- road schema 30.0+48.0+30.0 m;
- total width 15.41 m;
- carriageway width 13.25 m.

SIDE ROAD P2

- one way, two way and three way road of 641,05 m,
- flyover 119.4 m;
- material -RC;
- road schema 30.0+48.0+30.0 m;
- total width 15.41 m;
- carriageway width 13.25 m.

ARCHWAY PEDESTRIAN CROSSING

Located within Ostashkovskaya Street 30.

- the arch has U-shape;
- total length 36.0 m;
- material RC;
- total width 3.0 m;
- staircase width 3.35 m;
- glazing solid polycarbonate.

WORK ON THE PROJECT

Stages DD and WD:

General Design

CLIENT

Department of Roads and Bridges Construction, Moscow

DESIGN PERIOD

2019 - 2020

CONSTRUCTION PERIOD

LATITUDINAL SPEEDY HIGHWAY, SAINT PETERSBURG



Latitudinal Speedy Highway of Saint Petersburg and Leningrad Oblast should be placed along the Northern part of city Ring Road within Moscow, Frunzensky, Nevsky and Krasnoselsky Districts of Metropolis.

To be started from transportation interchange of Vitebsky Railroad up to Sousny Prospect of Ladoga Railway Station along further rail roads through Nevsky with Krasnogvardeysky Districts up to the administrative city border and next along Leningrad Oblast till KAD Ring-Road of our became known as "Northern Capital" till Murmansk Motorway.

TECHNICAL FEATURES

- total length of the site about 14 km
- bridge spans composite RC
- bridge width 3 lanes per each direction.

CONSTRUCTION STAGES

CONSTRUCTION STAGE 2

Roadway section from PK 25+85.975 of right direction and PK 25+70.075 left direction up to PK44+47.09.

Total length of right direction is 1,861.115 m with left direction of 1,877.015 m.

Designated for construction:

- transportation interchange over Vitebskiy Prospect together with rail roads;
- transportation interchange over Sophiyskaya Street and further Salova Street;
- reconstruction of the part of Progonnaya Street.

CONSTRUCTION STAGE 3

Roadway section from PK 44+47.09 till the right direction of PK 66+52.05 up to the left direction of PK 56+00. The entire length of the right direction is – 2,204.96 m with the left one of 1,152.91 m.

Designated for construction:

- transportation interchange on Sophiyskaya and Salova Streets;
- transportation interchange on Gluchoozernoe Shosse and Vtoroy Luch Street.

CONSTRUCTION STAGE 4

Roadway section from PK66 +52.05 of the right direction start from PK 5 6+00 of the left direction up to PK 139+46.74 and further up to PK 139+46.74 till PK 166+00. The entire length of the right direction is 7,294.69 m plus the left one of 8,346.74 m, further form PK139+46.74 till PK 166+00 are 2,653.26 m.

Designated for construction:

- junction on Gluchoozernoe Shosse
- bridge crossing over the Neva River
- junction on Souzniy Prospect
- junction on Communi Street
- junction on the "KAD" -Ring Road

WORK ON THE PROJECT

Project documentation Stage:

- general design
- development of DD
- main structures design
- technology development
- SAC&D development with construction design
- cost estimation documentation
- participation in design State Expertise

CLIENT

SC WHSD

DESIGN STAGE



RING ROAD OVER KHABAROVSK CITY ON 13-42 KM

PROJECT DESCRIPTION

Ring Road over Khabarovsk City on 13-42 km is being designed as a toll motorway road for the purpose of historical center comfortable detour by noisy heavy trucks within outskirts of the fast growing city.

SITES OF ROAD CONSTRUCTION

24 ARTIFICIAL STRUCTURES AS FOLLOWS:

- Composite structures 22
- Solid RC structures 1
- RC structures 1
- 3 VIADUCTS OVER CHANNELS
- 5 TRANSPORTATION INTERCHANGES
- 11 SPOTS WITH CROSSROADS

SINGLE CROSSING WITH SKIING-RUN

5 - TURNPIKES

TECHNICAL FEATURES

- Total length of the motorway 27,114 m
- Local road classification IB
- Lanes quantity 4 pcs
- Designated speed 120 km/h

WORK ON THE PROJECT

Work Documentation Stage:

- General Design
- DD correction with Expertise completion
- technical supervision

CLIENT

Regional Concession Company Ltd

GENERAL CONTRACTOR

Group VIS

DESIGN STAGE

2017 – 2020

CONSTRUCTION STAGE

2017 – 2021

TRAM NETWORK ALONG THE ROUTE **KUPCHINO-SHUSHARY-SLAVIANKA**, ST. PETERSBURG



New tram network is located within Frunzensky, Moskovsky and Pushkinsky Districts of the city and runs from the metro Kupchino up to Slavyanka District.

TWO STAGES OF CONSTRUCTION ARE BEING DESIGNATED:

Stage 1 – design and construction of the tram network from the old tram route of the Balkanskaya Ploshchad station up to Novgorodsky Prospect including the tram network of Starorussky Prospect with the Tram Depot with access roads;

Stage 2 – design and construction towards the new tram network to the residential neighborhood Slavyanka. Within the section of the route cross the tracks of the Oktyabrskaya Railway, the Moscow Highway and the Vitebskiy Prospect, then through the KAD Ring Road to the Turnpike Moscow - Saint Petersburg. The length of the tram tracks is considered about 21 kilometers.

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WORK ON THE PROJECT

Project and Work Documentation Stages:

- general design
- design documentation of territory planning.

CONCESSIONER

BaltNedvizhService

COINCIDENT

Saint Petersburg

CLIENT

BaltNedvizhService

GENERAL CONTRACTOR

опоры Nº 15

ABZ Dorstroy

DESIGN STAGE

2021

CONSTRUCTION STAGE

2024

MOTORWAY VINOGRADOVO-BOLDINO-TARASOVKA



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PROJECT DESCRIPTION

Turnpike to be designed and constructed within Mitishinskiy and Pushkinskiy municipal districts of Moscow Oblast for the better service and comfort of motorist to avoid traffic jams on local transportation network plus time saving towards the Highway A104 Moscow – Dmitrov – Dubna and M-8 Holmogory.

Being designed motorway includes engineering transportation structures, earth work, bridges, overpasses, retaining walls, transport interchanges, road junctions, and toll booths with other related objects.

Construction commencement is being arranged from the Highway A-104 Moscow-Dmitrov-Dubna – Povedniki near the village of Afanasovo in the Mytishchi District of the Moscow Oblast.

The end of the roadway is located at the junction with the Lot M-8 Kholmogory Moscow – Yaroslavl – Vologda – Arkhangelsk.

TECHNICAL FEATURES

- type of construction new;
- road class I-B;
- construction length 16.1 km;
- designated speed limit 120 km/h;
- designated speed limit within rough terrain 100 (60) km /h;
- lanes quantity per opposite directions 2+2;
- carriageway width 2x7,5 m;
- width of road median 5 m;
- emergency lanes width 3.75-7.50 m; 2.50 m;
- earth work width 28.5-34.2 m;
- road pavement type capital with asphalt-concrete layer;
- flyovers and bridges 11 pcs.;
- transportation interchanges 6 pcs.

WORK ON THE PROJECT

Work Documentation Stage:

- general design
- roadway design
- main structures design
- technology and assembling design
- SAC&D development with construction design
- cost estimation documentation development
- participation in State Expertise

GENERAL CONTRACTOR

000 VIS

CONCESSIONER

000 PKK

GRANTOR

Ministry of Transportation and road infrastructure of Moscow Oblast

DESIGN STAGE

2018 - 2019

CONSTRUCTION STAGE



CENTRAL RING ROAD OF MOSCOW REGION

INITIAL STAGE OF CONSTRUCTION. LOT 1

PROJECT DESCRIPTION

Construction of Central Ring Road of Moscow Region (toll road after the completion). Initial Stage of construction. Lot 1. Moscow Region, Podolsk, Novo-Fominsky District, Domodedovo

- Ruassian Grade Road IA, length 49,5 km
- Designated speed 140 km/h
- Lanes quantity 4 pcs.; 6 pcs(Stage II PK 2.417+09.56 PK2.912+00)
- Lane width 3,75 m
- Carriageway width 2×7,5 м ; 2х11,25 м (Stage II PK 2.417+09.56 PK2.912+00)
- Emergency lane 3,75 m
- Deviding lane 6,0 m
- Junctions of different levels 4 pcs; 5 pcs (Stage II PK 2.417+09.56 – PK2.912+00)
- Bridge crossings 50 pcs; 53 pcs(Stage II PK 2.417+09.56 PK2.912+00)

STANDARD TEMPORARY VERTICAL LOADS:

- per artificial strtuctures A14, H 14
- per raod pavment 115 kN

CLIENT

State-owned Company Russian Motorway Roads

GENERAL CONTRACTOR

SC KROKUS

WORK ON THE PROJECT

- Set of measures preparation reckoning state-of- art structures with utility lines optimization, regarding 1-st Stage of construction with volume required for technical decisions approval via the board of Government Technical Experts Committee.
- Approval of optimized solutions of 'Avtodor' Technical Experts together with presentation materials.
- Total set of works completion concerning work documentation preparation regarding construction site Central Ring Road of Moscow Region (toll road after the completion) including optimization options, approved by State-owned Company Avtodor.

DESIGN STAGE

2016 - 2020

CONSTRUCTION STAGE



CHUSOVAYA RIVER BRIDGE IN PERM CITY





Reconstruction of the Perm-Berezniki Highway, section of the bridge over the Chusovaya River km 22+157 – km 25+780. Initial part of the above-mentioned section of the Federal highway is located within the city of Perm running along the left bank of the Chusovaya River. Section length is 3.62 km, including the bridge over the Chusovaya River – 1,504 m.

SITES OF ROAD CONSTRUCTION

MOTOR ROAD. APPROACHES RECONSTRUCTION

- entire length 1.98 km
- number of lanes 4
- width of the lane on the approaches 3.75 m
- dividing lane width on the approaches 5 m
- design speed 120 km/h

NEW STEEL GIRDER BRIDGE OVER THE CHUSOVAYA RIVER

- schema: (4x84)+(84+126+5x147+126+84)m
- overall length 1,504.4 m
- total dimension 11.5 m
- entire area 22,560 m²

TWO RAILWAY OVERPASSES (RECONSTRUCTION) ABOVE THE NEW HIGHWAY

Отдельно под I и II ж/д пути над реконструируемой автодорогой.

- new overpasses schema: 9m (reinforced concrete)+ 66 m (steel) + 9 m (reinforced concrete) +11 m (reinforced concrete) + 9 m (reinforced concrete)
- total length of each overpass 113.34 m

OLD REINFORCED CONCRETE VEHICLE OVERPASS ABOVE THE RAILWAY (EXTENSION)

- schema: 6x24 m
- flyover total length 136.51 m
- overall dimension 2 x 15.25 m
- viaduct area 4,859 m²
- number of lanes 6

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- design of basic structures (bridge over the Chusovaya River and railway overpasses)
- approaches reconstruction design
- construction method statement
- estimate calculation of the motor road section reconstruction
- presentation of design and estimate
- documentation to FSI 'Glavgosexpertiza of Russia'
- expertise support
- Federal Expertise passing

CLIENT

Road Agency of the Perm Region

GENERAL CONTRACTOR

Automobile Roads Department of the Perm Region

DESIGN STAGE

2018 - 2020

CONSTRUCTION STAGE

2019 - 2023



WESTERN BRIDGE OVER THE VOLGA RIVER IN TVER

PROJECT DESCRIPTION

Bridge is placed in a densely populated area of the town of Tver and includes automobile road from Petersburgskoye Shosse to Kalinina Prospect (near Komsomolskaya Square – the Tmaka River) being in parallel to the railroad track with motorway viaduct over railroad tracks along Petersburgskoye Shosse (Gorbaty Bridge), bridge over the Volga River (Western bridge), railway overpass across Kalinina Prospect.

Bridge crossing section length:

- Total length: 3,003.09 m
- Number of lanes: 4

TRAFFIC INTERCHANGE

WITH THE PETERSBURGSKOYE SHOSSE:

- Petersburgskoye Shosse 693.65 m, lanes 4
- 1 Exit 340.10 m, 3 lanes
- 2 Exit 306.7 m, 3 lanes
- 3 Exit 94.2 m, 1 lane

JUNCTION ON KOMSOMOLSKAYA SQUARE:

- Kalinina Prospect Lenina Prospect 282.50 m
- circular traffic 453.33 m

Number of lanes:

- Kalinina Prospect 8
- Lenina Prospect 4
- circular traffic 3

FACILITIES AS A PART OF THE BRIDGE CROSSING

- steel continuous superstructure
- abutments and intermediate piers made of reinforced concrete on a piled foundation
- length 349.57 m
- schema 99+126+99 m
- width between the railings 38.05 m
- area 13,301 m²

HIGHWAY OVERPASS ACROSS RAILROAD TRACKS ON THE PETERBURGSKOE HIGHWAY (GORBATY BRIDGE)

- composite reinforced concrete continuous spans of customized design
- length 158.47 m
- schema 40+47+40 m
- width between the railings 26.1 m
- area 4,136 m²

RAILWAY VIADUCT OVER KALININA PROSPECT, NORTHERN APPROACH VIADUCT

- girder steel simple span of special design with the roadway below
- length 70.9 m
- schema 27+27 m
- number of tracks 2
- width between the railings 12.5 m
- area 886.25 m²

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- Federal Expertise passing

CLIENT

Department of Architecture and Construction of Tver administration

DESIGN STAGE

2013 – 2020

CONSTRUCTION STAGE

KRYMSKY BRIDGE, RUSSIA

Kerch Strait Bridge Crossing



PROJECT DESCRIPTION

The bridge is situated between Crimea's city of Kerch and the village of Taman in the Temryuk District of the Krasnodar Region, along Tuzla Island and the Tuzla Spit.

- Our crossing consists of two parallel bridges a motorway bridge and railroad bridge
- The decks for the highway are beam composite reinforced concrete, simple and continuous ones of individual design
- Steel decks with an orthotropic plate are located above the water area of the Kerch Strait. The design span is from 54.21 m to 64.20 m
- There will be a separate deck for each traffic direction. In the crosssection, two main I beams create the span: they are connected via transversal beams and the system of vertical

and horizontal braces

- The decks for the railway tracks are simple, made of solid metal with an orthotropic plate and a ballast bed
- The design span is from 54.6 m to 62.56 m
- The decks are separate, one for each railway track and connected on the piers with jacking beams
- The main box-section girders of the deck are divided into two segments horizontally
- Arch spans with a design span of 227 m are located over the Kerch-Yenikalsky Channel and provide a clearance of 185 m x 35 m
- designed length of the crossing 19,000 m
- length of the motorway bridge 16,857.28 m
- length of the railroad bridge 18,118.05 m





WORK ON THE PROJECT

- general design
- design of main structures (design documentation and work documentation)
- design of construction technology
- SAS&D
- design (design documentation and working documentation)

CLIENT

Taman Road Department, federal state enterprise

GENERAL CONTRACTOR

LLK STROYGASMONTAZH

DESIGN STAGE

Project Documentation: 2015 Work Documentation: 2015 – 2018

CONSTRUCTION STAGE

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CABLE STAYED **BRIDGE OVER THE GOLDEN HORN BAY**, VLADIVOSTOK



GENERAL DESIGN

Bridge Crossing over the Federal motorway M-60 «Ussury» Khabarovsk - Vladivostok - Russkiy Island. Crowned in city center near Gogolya and Nekrasovskaya Streets in Southern part plus Kalinina Street in Northern part of the city. Total length of bridge crossing is 2.1 km.

SITES OF ROAD CONSTRUCTION

THE OVERPASS BETWEEN THE PASSAGE OF GOGOLYA & NEKRASOVSKAYA STREETS

- overpass length 80 m
- overpass width between railings 9.4 m
- area of the overpass 750 m²

TUNNEL

- tunnel length 249.2 m
- width 21 m
- tunnel total area 2,770 m²

NORTHERN APPROACH FLYOVER

- material composite RC
- total length 220 m
- width within barriers 22.2 m
- total area 4,890 m²

CABLE STAYED BRIDGE OVER THE GOLDEN HORN BAY

- bridge schema: 45+100+2x90+737+2x90+100+45 m
- main span steel 737 m
- anchor span prestressed cast in-situ concrete
- total length 1,387 m
- pylons height 227 m
- main span 737 m
- underwater clearance 60 m
- girder width between barriers 29.4 m
- girder height 3.5 m
- weight of stays 1,845 t
- overpass total area 43,030 m²

SOTHERN APPROACH FLYOVER

- material composite RC
- total length 123 m
- width within barriers 21.4 m
- flyover total area 2,620 m²

OVERPASS EXIT ON VSEVOLOD SIBIRTSEVA STREET

- material composite RC
- total length 135 m
- width within barriers 9.4 m
- total area 1,270 m²

OVERPASS EXIT ON KALININA STREET

- material composite RC
- total length 135 m
- width within barriers 9.4 m
- total area 1,270 m²

OVERPASS EXIT FROM KALININA STREET

- material composite prestressed RC
- total length 135 m
- width within barriers 9.4 m
- total area 1,440 m²

SEA BERTH OF PACIFIC NAVY (RECONSTRUCTION)

total area – 5,400 m²

ROAD UTILITY NETWORK WITHIN BRIDGE CROSSING (RECONSTRUCTION)

- area of carriageway 76,300 m²
- landscaping of adjacent areas 60,700 m²

WORK ON THE PROJECT

Project Documentation Stage:

- fulfillment of design works as a subcontractor
- bridge construction design
- passing of Federal Expertise.

Work Documentation Stage:

- general design
- total main structures design
- SAC&D and MS development
- financial estimates
- technical supervision.

CLIENT

Primorskiy Kray Road Department

GENERAL CONTRACTOR

TMK Ltd

DESIGN STAGE

Project Documentation Stage: 2006 – 2008

Work Documentation Stage: 2008 – 2010

CONSTRUCTION STAGE

CABLE-STAYED BRIDGE OVER THE **SHEKSNA RIVER**, **CHEREPOVETS**, RUSSIA





Two H-type pylon Cable-Stayed Bridge Crossing is being connected Zarechenskiy and Zashekninskiy districts on Arkhangelskaya street in Cherepovets City.

TECHNICAL FEATURES

- bridge crossing design length 2,000 m ÷.
- total length 1,166.85 m schema: 4x63+63+64+98+220+98+64+63+3x63+42 m .
- height of RC pylons 91 m .
- reinforced concrete pylons
- stays length 5,428 m
- weight of stays 325 t
- composite reinforced concrete superstructures
- number of lanes 6
- carriageway overall dimension $-2(\Gamma-14.25)$
- sidewalks 2x3.0 m
- underclearance 180 m
- height of underbridge clearance within a main span 17 m

WORK ON THE PROJECT

- general design
- design of basic structures (bridge and approach flyovers)
- integrated design
- development of architectural solutions
- design of SAC&D and Construction Method Statement
- road design
- illumination design н.
- navigation signaling design
- design of aviation signaling
- landscaping design
- technical supervision

CLIENT

Department of Capital Construction and Repair of Cherepovets City Administration

DESIGN STAGE

2010 - 2011

CONSTRUCTION STAGE

BRIDGE OVER THE AMURSKIY GULF



GENERAL DESIGN

Highway village Noviy – Peninsula De-Friz -Sedanka – Patrokl Bay with bridge (overpass) De-Friz – Sedanka. City bridge in Vladivostok city connecting Peninsula De-Friz with Sedanka settlement.

SITES OF ROAD CONSTRUCTION

BRIDGE OVER THE AMURSKIY GULF

- bridge total length 4,380 m
- 16 continuous composite RC girders with each panel per 273.8 m long
- bridge schema: 42.4+3x63+42.4 m
- width 23.88 m
- clearance 2(Г10)
- sidewalks 2x1.0 m

ROUTE

- carriageway width 2 x 7.5m =2x(2x3.75) m
- dividing lane width 2.7 m
- technical approaches 2x0.75 m

TRANSPORTATION INTERCHANGE WITHIN MAKOVSKOGO STREET AND FLYOVER

- type of transportation interchange 'clover'
- flyover schema 4x24 m
- material RC girders
- flyover total length 101.42 m
- clearance 2(Г-14.25 m)

WORK ON THE PROJECT

Work Documentation Stage:

- general design
- total main structures design
- design of motorway with junction
- underground pedestrian crossings design
- SAC&D, construction technology and MS design
- illumination and power supply arrangement
- sewage facilities completion
- utilities network rearrangement
- heating boilers modification
- technical supervision
- Federal Expertise passing

CLIENT

Department of Road Section of Primorskiy Kray

GENERAL CONTRACTOR

ZAO TMK

DESIGN STAGE

2010 - 2011

CONSTRUCTION STAGE

2010 - 2012

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HIGHWAYS, BRIDGES, INTERCHANGES AND FLYOVERS IN THE CITY OF ASHKHABAT AND AKHAL VELAYAT



Construction of motorway 'East-West' from the intersection of Ring Road with 'Ashkhabad-Mary' motorway up to highway 'Ashkhabad – Turkmenbashi' with local route to Geokdepe village near Ashkhabad. Traffic interchange at the intersection of South Ring Road up to Turkmenbashi avenue.

FACILITIES AS A PART OF THE ROUTE

SEVEN TRAFFIC INTERCHANGES AT THE INTERSECTIONS OF THE EXISTING HIGHWAYS WITH AVERAGE AREA OF 1KM² EACH:

- Junction at the intersection of Ring Road with the Highway 'Ashkhabad–Mary' and railway tracks near the settlement of Gyami
- Traffic interchange in the area of «PK 160» per connection with bridge structure
- Transport junction at the intersection of Tretya Pyatiletka Street with Kulieva Street together with the traffic interchange with a new bridge crossing constructed under separate contract
- Traffic interchange at the intersection of Andaliba Street

with Kulieva Street plus connection of the traffic interchange with a new bridge crossing constructed at the site of in-service bridge

- Traffic junction at the intersection of Niyazova Street and Kulieva Street with linking of the traffic interchange plus the new bridge crossing constructed at the site of the old one.
- Traffic interchange at the intersection of the motorway 'Ashkhabad – Turkmenbashi' with the highway toward Geokdepe and railway tracks Ashkhabad – Turkmenbashi
- Junction at the intersection of the Ring Road Southern part with Turkmenbashi Prospect

TWO LOTS OF RING ROAD 10 KM LONG

THREE BRIDGE CROSSINGS OVER THE KARAKUM RIVER WITH APPROACHES AND JUNCTIONS

All structures are designed with consideration for maximum seismic activity of 9 points and more.







WORK ON THE PROJECT

engineering survey – geodesic plus hydro-geological (control of the survey as a general designer)

Project Documentation Stage:

General Design

passing of state expertise

Work Documentation Stage:

- development of site architectural decisions
- design of engineering structures
- design of roads and traffic interchanges street illumination with electric power supply design
- landscaping design
- SAC&D plus construction technology development
- field supervision ۰.

- technical supervision
- passing of state expertise
- technical supervision
- Federal Expertise passing ÷.

CLIENT

Department of construction in Ahkhabad City

GENERAL CONTRACTOR

ZAO Vozrozhdenie

DESIGN STAGE

Project Documentation Stage:

2009 - 2010

Work Documentation Stage:

2010

CONSTRUCTION STAGE



MOTORWAY FLYOVERS ON THE HIGHWAY TURKMENBASHI AIRPORT – NATIONAL TOURIST RESORT AVAZA

GENERAL DESIGN

LOT 1

PROJECT DESCRIPTION

Viaduct of 400m long within motorway Turkmenbashi Airport – national tourist resort Avaza.

Total structures were designed with consideration for maximum seismic activity of 9 points and more.

Location of the viaduct was conceived for transportation convenience within city districts for the comfort of speedy Turkmenbashi Airport approach as well as to national tourist resort «Avaza» together with designed two independent lanes of cozy highway toward Turkmenbashi Town with the following basic features:

- deck solid RC structure of customized design
- height of the structure 1.4 m
- deck schema 3x32+4x32+4x32 m
- total length 1,527.84 m
- viaduct length 400 m
- total length of 11 Exits 3,800 m
- entire area 51,780 m²
- total area of 11 Exits 60,692 m²
- carriageway clearance Γ 14.25+14.25
- calculated live loads A-14, HK-100

Project Documentation Stage:

General Design function fulfillment

Work Documentation Stage:

- general design
- total main structures design
- SAC&D design
- technical supervision
- Federal Expertise passing

CLIENT

Department of construction in Ashkhabad City

GENERAL CONTRACTOR

ZAO Vozrozhdenie

DESIGN STAGE

Project Documentation Stage: 2009 - 2010

Work Documentation Stage: 2009 - 2011

CONSTRUCTION STAGE

LOT 2

PROJECT DESCRIPTION

Design and construction of the motorway bridge (flyover) with total length of 1,300 m within Turkmenbashi Airport approach toward national tourist resort Avaza. The above-mentioned viaduct is located within North-West part of speed Turkmenbashi Highway Airport approach completed as a shortcut to national tourist resort Avaza.

Total structures were designed with consideration for maximum seismic activity of 9 points and more.



SITES OF ROAD CONSTRUCTION

FLYOVER

- continuous composite RC deck structure
- schema 30×42 m
- total length 1,300 m
- flyover width between barriers 36.3 m
- entire area 47,190 m²

APPROACHES TO VIADUCT

- approaches total length 650 m
- carriageway clearance 28.5 m
- area of approaches 23,595 m²

SCOPE OF WORKS

Project Documentation Stage:

General Design function fulfillment

Work Documentation Stage:

- general design
- total main structures design
- SAC&D design
- technical supervision
- Federal Expertise passing

CLIENT

Department of construction in Ashkhabad City

GENERAL CONTRACTOR

ZAO Vozrozhdenie

DESIGN STAGE

Project Documentation Stage: 2009 - 2010

Work Documentation Stage: 2009 - 2011

CONSTRUCTION STAGE

2010 - 2011

BERLINSKY BRIDGE, KALININGRAD



Reconstruction of the bridge over the Staraya Pregolya and Novaya Pregolya Rivers within Southern part of Kaliningrad City Ring Road (Stage II). Construction of new bridge with approaches.

Bridge is located on the intersection of Southern part of Kaliningrad Ring Road between Moskovskiy Prospect and Emelyanova Street of Eastern side of the city. The entire length of the bridge structure is 1,490 m with basic features as follows:

- bridge length 640 m
- approaches length -850 m
- bridge schema: (3x27.0)+(36.4+64.5+36.4)+ +3x(3x27.0)+(36.4+64.5+36.4)+(3x27.0) m
- clearance 2x Γ-13,25 with sidewalks per 1.5 m
- total area of the lower bridge section 10,700 m²
- cast-in-situ RC piers of piled foundation
- composite RC deck structures
- comfortable navigation is being ensured

WORK ON THE PROJECT

Work Documentation Stage:

- general design
- main structures design: piers, decks, retaining walls, etc.
- main approaches arrangement
- SAS&D entire design
- launching technology over run of river spans
- technical supervision
- Federal Expertise passing

CLIENT

Direction of Road Sector of Kaliningrad area

GENERAL CONTRACTOR

JSC USK MOST

DESIGN STAGE

2011 - 2012

CONSTRUCTION STAGE



BRIDGE OVER THE STARAYA AND NOVAYA PREGOLYA RIVERS IN KALININGRAD CITY



This bridge is the essential part of the city public transportation plus exit toward the Highway VIA BALTICA to Lithuania, Poland and Western Europe. Two urban districts Moskovsky and Leningradsky located on the opposite banks of the Staraya and Novaya Pregolya Rivers were being connected to each other.

SITES OF ROAD CONSTRUCTION

APPROACH FLYOVERS TO THE OVERPASS ACROSS MOSKOVSKY PROSPECT (CONSTRUCTION)

- flyover length 59.7 m
- schema: 11.0+2x16.0+11.0+5.7 m
- slab-girder continuous superstructure made of prestressed cast in-situ reinforced concrete

VIADUCT OVER THE MOSKOVSKY PROSPECT (RECONSTRUCTION)

- viaduct schema: 19.05+2x25.0+19.05 m
- total length 93.7 m
- carriageway clearance Γ 27.5+2x0.75 m

ELEVATED TRAFFIC INTERCHANGE AT THE INTERSECTION

WITH MOSKOVSKY PROSPECT

- flyover along the route axis
- schema: 6.1+10.9+3 x17.75+11.25 m
- length 81.5 m
- carriageway clearance Γ 27.5+2+(0.75-1.5) m
- width from 30.7 to 32.0 m

FLYOVERS ON THE EXITS

- schema: 9.25+2x12.0+4x10.0+9.33 m
- length per 86.6 m
- carriageway clearance Γ 16.5+0.75+1.5 m
- slab-girder continuous superstructures made of prestressed cast in-situ reinforced concrete

BRIDGE OVER THE NOVAYA PREGOLYA RIVER (RECONSTRUCTION)

- bridge schema: 33+2x42+34.82 m
- length 151.82 m
- carriageway clearance Γ 27.5+2x1.5 m
- deck continuous composite RC structure of 1.85 m height, composed of six steel girders in cross-section of 1.6 m height

FLYOVERS ON THE ISLAND BETWEEN THE NOVAYA PREGOLYA AND STARAYA PREGOLYA RIVERS (CONSTRUCTION)

- continuous composite reinforced concrete superstructure of 3.07m height
- schema: 20 x 42.0 m
- length 841.05 m
- composed of four box-shaped steel segments per the schema: 9.65+6.2+9.65 m

BRIDGE OVER THE STARAYA PREGOLYA RIVER (RECONSTRUCTION)

 bridge of 153.06 m long with the carriageway clearance - F 27.5+2x1.5 m

ELEVATED TRAFFIC INTERCHANGE NEAR DZERZHINSKOGO STREET (CONSTRUCTION)

- schema: 6+2x14+2x18+14.378+17.554 m
- length –101,932 m
- carriageway clearance Γ 27.5+2x0.75 m
- slab-girder continuous superstructure made of prestressed cast in-situ reinforced concrete

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- bridge conception
- design of bridge and viaduct structures
- construction technology development
- SAS&D design
- Federal Expertise fulfillment

Work Documentation Stage:

- general design
- total main structures design
- design of streets and junctions
- construction technology development
- illumination and power supply design
- landscaping design
- technical supervision

CLIENT

Municipal Authorities of Kaliningrad City, JSC USK MOST

GENERAL CONTRACTOR

JSC USK MOST

DESIGN STAGE

Project Documentation: 2006

Work Documentation: 2006 - 2007, 2010

CONSTRUCTION STAGE

SPEED HIGHWAY ALONG THE DAM OF SAINT PETERSBURG BY BRONKA RAILWAY STATION



Second stage of speed Ring-Road KAD construction around the city of Saint-Petersburg composed of Dam structures D1-D3, including navigation passage C-1 with main features as follows:

- lanes quantity 6pcs.
- basic schema: 3x3.75 m+3.00 m+3x3.75 m
- total length of motorway 8km comprised of bridges over fairway and culverts B1 & B2, within Ring-Road plus viaducts and transportation interchanges exits.

SITES OF ROAD CONSTRUCTION

SPEED HIGHWAY

Along the Dam D-1 structure of SPb Ring Road

MOTORWAY KAD

Within section of PK0-PK8+46.30 together with piled foundation arrangement scope of works

KRASNOFLOTSKOE HIGHWAY

Highway has been reconstructed with new drainage system arrangement including the set of reinforced retaining walls construction with 6-12 m height.

ROAD EXITS

Composed of the set of retaining walls of 14 m within the distance of 860 m long.

ENGINEERING STRUCTURES C1, C2, C3, C4 AND C5

Completed as bridge crossing structures with com-fortable and convenient transportation exits to Saint Petersburg Ring Road KAD including retaining walls arrangement

KRASNOFLOTSKOE SHOSSE

- navigation passage C1 with KAD intersection
- navigation passages C2, C3, C4, C5 with railroad in-service intersection
- navigation passages C1, C2 fulfilled via straight RC deck girders
- navigation passages C3, C4, C5 fulfilled via curved form RC deck girders (span length from 25 up to 54m) with 2.1 m height
- navigation passage C2 with schema (18+33+12+33)m, being completed with angle of 67° to the main railroad track
- navigation passages C2, C3 for one-way two-lane traffic
- navigation passages C4, C5 for one-way one-lane traffic with service passages per 0.75 m
- exits 1, 2, 3 with retaining walls per 212 m, 122 m & 88 m

WORK ON THE PROJECT

Work Documentation Stage:

- general design
- initial data collection and in-service engineering structures survey
- design and approval of architectural solutions
- roadway design
- illumination design
- power supply fulfillment
- drainage design
- sewage design
- waste-disposal plant design
- design of noise protection facilities
- existing utilities rearrangement design
- landscaping design
- Federal Expertise passing

CLIENT

Authority of Dam Complex of Ministry of Regional Development

GENERAL CONTRACTOR

DSK Ltd

DESIGN STAGE

2008 - 2009

CONSTRUCTION STAGE

SECTION OF RING-ROAD **KAD AROUND SAINT PETERSBURG** FROM PRIOZERSKOE SHOSSE UP TO **MOTORWAY RUSSIA**, LOT 5



First stage of Ring-Road KAD construction around the city of Saint Petersburg started from Priozerskoe Shosse up to highway Russia, (PK 750+00 – PK 795+72.43). Lot 5. with basic features as follows:

- site location: PK 750+00 & PK 795+72.43
- entire length: 3,576.85 m + Belyaevskiy Arch Bridge over the Okhta River 332.6 m

SITES OF ROAD CONSTRUCTION

BELYAEVSKIY ARCH BRIDGE

basic features as follows:

- 161.4 m, Γ-19.0 (arch span Lp=160 m)
- 161.2 m, Γ-19.0 (Lp=48.4+63+48.4 m)

TRANSPORTATION INTERCHANGE AT THE INTERSECTION OF KAD WITH RYABOVSKOE SHOSSE PK 774+62

- Exit length: 1 3 737.29 m , Γ-9
- Exit length: 2 3 717.49 m, Γ-9
- Exit length: 4 319.55 m, Γ-7
- retaining wall length per Exit 1 152,63 m, Γ-9
- retaining wall length per Exit 2 142,2 m, Γ-9

VIADUCT NEAR RZHEVKA RAILROAD STATION

- flyover 1: entire length 216.64 m, Γ-19.0, w=22 m
- flyover 2: entire length 115.92 m, Γ-19.0, w=21.2 m
- flyover 3: entire length 355.76 m, Γ-19.0, w=22 m
- flyover 4: entire length 96.70 m, Γ-19.0, w=21.1 m
- flyover 5: entire length 240.0 m, Γ-19.0, w=22.5 m
- flyover 6: entire length 236.23 m, Γ-19.0, w=21.1 m
- flyover 7: entire length 266.44 m, Γ-19.0, w=22 m

WORK ON THE PROJECT

Project Documentation Stage:

- tender documentation development
- Work Documentation Stage:
- general design
- total main structures design
- SAS&D, MS and construction technology design
- technical supervision
- Federal Expertise passing

CLIENT

Federal State Institution Directory of Ring Road construction of Saint Petersburg;

Saint Petersburg-Dorservis Ltd, JSC MO-19

GENERAL CONTRACTOR

JSC MO-19, Flora Ltd

DESIGN STAGE

2007 - 2008

CONSTRUCTION STAGE



FLYOVER TO PISKAREVSKIY PROSPECT FROM RUSTAVELY STREET TO MOTORWAY KAD, SAINT PETERSBURG, RUSSIA

PROJECT DESCRIPTION

Viaduct on Piskarevskiy Prospect from Rustavely Street up to motorway KAD, Saint Petersburg including the existing utility network rearrangement out of the site area to ensure convenient connection of Piskarevskiy Prospect with Motorway KAD.

STRUCTURES WITHIN MOTORWAY

VIADUCT OVER THE RAILROAD STATION RUCHI

- material cast in-situ prestressed RC
- schema: 5x24+4x24 m
- total length 216 m
- width 26.1 m

RETAINING WALLS ALONG PISKAREVSKIY PROSPECT

- material prestressed RC
- length- 85.8m and 76.4 m
- height up to 4.1 m

VIADUCT OVER KAD DESIGNED PER ONE - WAY TRAFFIC WITH COMPOSITE RC DECK

- schema: 17.6+2x33+17.6 m
- total length 105 m
- flyover width 12.8 m

WORK ON THE PROJECT

Project Documentation Stage:

- general structural decisions elaboration
- SAC&D design
- Federal Expertise passing

Work Documentation Stage::

- general design
- utilities rearrangement
- design of main structures, facilities and SAS&D development
- roadway network arrangement and landscaping
- estimation completion

CLIENT

Authority of transport construction of Saint Petersburg

GENERAL CONTRACTOR

ZAO Vozrozhdenie

DESIGN STAGE

2008 - 2010

CONSTRUCTION STAGE



FLYOVER WITHIN PISKAREVSKIY PROSPECT OVER THE RAILROAD BY PISKAREVSKA STATION, SAINT

PROJECT DESCRIPTION

Piskarevskiy Prospect Viaduct reconstruction over the Piskarevska Railroad Station including two motorways and one train track with pedestrian tunnel. Total length 1.09 km on the Piskarevskiy Prospect plus 0.8 km from Ekaterininskiy Prospect toward Brusova Street.

STRUCTURES WITHIN MOTORWAY

TWO MOTORWAY FLYOVERS, HIGHWAY MP3

- carriageway asphalt concrete
- schema 25.5+(9.5)-29+(10.55)m
- roadbed 41.5 45 m

TRAM VIADUCT

PEDESTRIAN TUNNEL NEAR KURAKINA STREET

- total length 62 m
- composite structure

WORK ON THE PROJECT

Project Documentation Stage:

- main structures design
- architectural solution development
- construction MS development
- tender documentation completion
- Federal Expertise passing

Work Documentation Stage:

- general design
- total main structures design
- SAS&D development
- MS design
- technical supervision

CLIENT

Trest Lenmostostroy Ltd

Board of Transportation Directory

GENERAL CONTRACTOR

Trest Lenmostostroy Ltd

DESIGN STAGE

2006 - 2007

CONSTRUCTION STAGE



FLYOVER IN SESTRORETSK TOWN



Viaduct reconstruction located within 734km of the Highway Moscow - Saint Petersburg - Sestroretsk. The viaduct is placed between Primorskoe Shosse and Mosina Street.

- area total length 900 m flyover length 164.6 m н.
- schema: 17.0+7x17.8+17.0 m н.
- width 23.73 m
- deck length 158.6 m

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- main structures design
- construction MS development
- Federal expertise passing

Work Documentation Stage:

- total main structures design
- construction technology development
- SAS&D development н.
- MS design
- estimate documentation .
- technical supervision
- Federal Expertise passing

CLIENT

Authority of transport construction of SPb

GENERAL CONTRACTOR

Trest Lenmostostroy Ltd

DESIGN STAGE

2003 - 2004

CONSTRUCTION STAGE

BRIDGE OVER THE **VOLKHOV** RIVER AT THE APPROACH TO THE TOWN OF **KIRISHI**



Bridge crossing over the Volkhov River at the approach to the town of Kirishi, Leningrad Region. The bridge being a part of the highway provides transport link between Kirishi and Zuyevo – Novaya Ladoga motor way and with the system of regional roads.

The bridge crossing is conceived in the western part of the town of Kirishi per 23 m downstream from the axis of the busy highway bridge over the Volkhov River.

The above-mentioned bridge connects Leningradskoe Shosse with Leningradskaya Street.

SITES OF ROAD CONSTRUCTION

BRIDGE ACROSS THE VOLKHOV RIVER

- schema: 66+84+124+84+66 m
- total length 1,486.8 m
- width 15.25 m
- steel reinforced concrete continuous spans

APPROACH FROM THE LEFT-BANK SECTION

- length 460 m
- APPROACH FROM THE RIGHT-BANK SECTION
- length 592 m

UNDERBRIDGE

length – 543 m

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- design of basic structures
- development of construction technology
- SAS&D arrangement
- project for organization of bridge crossing construction
- estimate documentation completion
- passing of Federal Expertise

CLIENT

Lenavtodor State Institution

DESIGN STAGE

2007 - 2012

CONSTRUCTION STAGE

BRIDGE OVER THE VOLKHOV RIVER IN VELIKY NOVGOROD



Motorway road Veliky Novgorod – Khutin up to Highway Veliky Novgorod – Luga with bridge crossing over the Volkhov River.

SITES OF ROAD CONSTRUCTION

STRUCTURES WITHIN MOTORWAY

Motorway located on intersection of streets, lanes as well as with flyovers plus junctions by Volkhkov River and Donets Creek

TRANSPORTATION INTERCHANGE 1

The junction is designed on intersection of Sirkovskoe Shosse with transportation round about and Sirkovskoe Shosse Viaduct

TRANSPORTATION INTERCHANGE 2

Structure is fulfilled on intersection of Energetikov Lane with passage arrangement under the flyover

TRANSPORTATION INTERCHANGE 3

Junction is placed on busy intersection of Rabochaya Street

TRANSPORTATION INTERCHANGE 4 WITH CURVED EXITS

Site is designed on intersection of Bolshaya Sankt-Petersburgskaya Street with cozy transportation exits arrangement

BRIDGE OVER THE VOLKHOV RIVER

Basic features:

- bridge schema: 42+6x63+84+99+84+63+84+63 m
- total length 904 m
- carriageway width 29.0 m
- 2 lanes per each direction with width 4 m and 3.5 m
- 4 one way barriers having width per 0.5 m
- dividing lane width 2.0 m
- 2 pedestrian lanes with width per 3 m
- clearance 2xΓ 9.5+2x3.0 m
- pier 13 is arranged via customized staircases
- decks composite RC continuous girders
- total RC volume- 33,306 m²
- total steel weight 6,779 t

Navigation span of 9m height and 90 m width in accordance with Technical Specifications of 'Volgo-Balt Shipping Company'.

RIGHT BANK VIADUCT

JUNCTION 5

Located within intersection of Soviet Army Street

JUNCTION 6

Placed within intersection of Bolshaya Moskovskaya Street (PK-61) on the right river bank. The above viaduct crosses the highway with arranged comfortable exits for motorists. Single span reinforced concrete bridge crossing over the Donets Creek.

UNCTION 7

One-level structure within Khutin Motorway (PK-78)

JUNCTION 8

Located within intersection of Derzhavina Street with arranged cycling lanes and pedestrian lanes (PK 55 + 35.78) plus comfortable elevators for handicapped people

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- design of main structures
- roadway design
- development of architectural conception
- illumination design
- SAS&D and construction MS design
- technical supervision
- Federal Expertise passing

CLIENT

JSC Novgorogavtodor

DESIGN STAGE

2009 - 2010

CONSTRUCTION STAGE

BRIDGE OVER THE VOLKHOV RIVER, M-18 KOLA HIGHWAY



Projects regarding reconstruction of irreparable bridges (construction and reconstruction of bridges and overpasses), Reconstruction of the bridge over the Volkhov River at km 122+085 of M-18 Kola motor road from Saint Petersburg through Petrozavodsk, Murmansk, Pechenga to Norway border (Borisoglebsk International Automobile Border-Crossing Point), Leningrad Region.

The purpose of reconstruction is to fulfill modern operational requirements both in navigation (to ensure an underbridge navigable clearance of 13.5 x 120 m in accordance with the specifications of Volgobalt State-Financed Shipping Entity), and the demands regarding vehicle pass improvement together with perspective traffic increase.

Construction of this comfortable bridge was fulfilled along the new axis with the exception of long-term closure of busy traffic jam along the carriageway and rearrangement of fairway axis in accordance with the requirement of Volgobalt State-Financed Shipping Entity.

SITES OF ROAD CONSTRUCTION

BRIDGE ACROSS THE VOLKHOV RIVER

- schema: 63+84+126+84+2x48+39+54+39 m
- box-girder composite reinforced concrete continuous superstructure of special design
- length 596.9 m
- width 29 m
- underbridge clearance 120x13.5 m²
- number of traffic lanes 4
- total area 2x8,655.05 m²

TRAFFIC INTERCHANGE AT THE INTERSECTION OF M18 KOLA HIGHWAY AND A114 MOTORWAY LOCATED AT THE SECTION ISSAD – BEREZIE SETTLEMENTS ON THE RIVER-BANK.

FLYOVER WITH EXIT TO A114 HIGHWAY

- composite reinforced concrete continuous span
- schema: 27+36+27 m
- length 95.45 m
- width 9.5 m
- total area 1,346.6 m

TRAFFIC INTERCHANGE AT THE INTERSECTION

OF M18 KOLA HIGHWAY AND A115 MOTORWAY

Section between the town of Novaya Ladoga and Staraya Ladoga town on the left bank

OVERPASS PLACED BY A115 HIGHWAY

- schema: 33+42+37.5+31.35 m
- flyover length 143.85 m
- box-girder composite reinforced concrete continuous superstructure of customized design
- width max. 16.5 m
- total area 2,429.1 m²
- length of retaining walls 403.2 m

Road works:

- total length of Kola Federal Highway reconstructed section – 1,832 m
- carriageway area 67,060 m²
- landscaping total area 88,660 m²

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- all basic structures design
- design of roads and traffic interchanges
- construction method statement
- work performance procedure
- design of lighting and electricity
- landscaping design
- passing of Federal Expertise

CLIENT

Sevzapupravtodor Federal State Institution

(North-West Federal Highway Administration)

DESIGN STAGE

2007 - 2008

CONSTRUCTION STAGE

BRIDGE OVER URAL RIVER IN MAGNITOGORSK



Fifth bridge over the Ural River from Kalmykova St. to Chkalova St. within the city of Magnitogorsk. Urban bridge provided the convenient vehicle access from residential areas on the right bank side of the city to special economic zone – Magnitogorsk Iron and Steel Works, LLC on the left bank of the Ural River, as well as bypassing the inhabited locality with the exit to the Ring Road. Starting point of the route is located at the intersection of Truda St. and Kalmykova St. on the right bank of the Ural River. Final point of the route is located at the intersection of Chkalova St. and Shota Rustaveli St. on the left bank of the Ural River. Overall length – 6,041 m

SITES OF ROAD CONSTRUCTION

AUTOMOBILE ROAD WITH INTERSECTION OF TRUDA ST. AND KALMYKOVA ST. TOGETHER WITH THE TRAFFIC INTERCHANGE LOCATED AT THE DIFFERENT LEVELS ON THE APPROACH TO THE BRIDGE CROSSING OVER RADUZHNAYA ST., RIGHT BANK OF THE URAL RIVER.

- section length 2,087 m
- width 50 m
- area 104,350 m²

BRIDGE OVER THE URAL RIVER

- schema: 63.0+12x84.0+63.0+42 m
- length 1,187.74 m
- width 42.7 m
- 4 lanes per 3.75 m
- area arranged for the future tram tracks
- steel weight 13,563 tonnes
- concrete weight 44,214 m²
- area 50,717 m²

EXIT FROM THE BRIDGE TOWARD KOSMONAVTOV HIGHWAY AND DOUBLE-LEVEL TRAFFIC INTERCHANGE LOCATED AT THE INTERSECTION WITH KOSMONAVTOV HIGHWAY, LEFT BANK OF THE URAL

section length – 3,455.23 m, including the junction with two exits plus overpass:

- length 2,120 m
- width 22 m
- area 46,640 m²

AUTOMOBILE ROAD ON SHOTA RUSTAVELI STREET WITH THE OVERPASS ACROSS THE RAVINE AND THE INTERSECTION WITH

CHKALOVA STREET

- section length 1,643 m
- width 50 m
- area 82,150 m²

Overpass across the ravine:

- schema: 3 x 24 m
- length 79.8 m
- width 22.15 m
- area 1,768 m2

WORK ON THE PROJECT

Project Documentation Stage:

- general design
- design of basic structures (bridges, overpasses, traffic interchanges)
- architectural solutions development
- design of motor road
- development of construction technology
- financial estimates
 Enderal Expertise pageir
- Federal Expertise passing

Work Documentation Stage:

- general design
- design of basic structures
- development of SAS&D technology
- design of Construction Method Statement
- removal of utilities
- financial estimates

CLIENT

Magnitogorskinveststroy Municipal Institution, Municipal Entity, Magnitogorsk Urban District of Chelyabinsk Region

DESIGN STAGE

2007 - 2008

CONSTRUCTION STAGE

OUR EXPERTISE



DESIGN

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- highway bridges .
- railway bridges . combined bridges

highways & streets

viaducts & flyovers 10.

11

- footbridges
- transportation tunnels

road interchanges

- underground structures .

 - embankments & mooring berths
- retaining walls **1**11
- reinforced mounds
- buildings & structures of different heights
- sophisticated floors of buildings and structures
- foundations in complex environment status

- **FULFILLMENT**
- . general design
- sophisticated engineering analysis
- aerodynamic analysis
- financial estimates completion
- engineering supervision
- . protection of intellectual property
- engineering geodetic, geological, meteorological, environment . survey
- economic survey
- implementation of research on the construction, repair and . maintenance of highways
- design and survey works in concerning of reconstruction and maintenance of any engineering networks and communications
- transportation status modeling
- optimization of public passenger transportation route networks .
- macroeconomic analysis for large interregional transport .
- projects technological and price audit of DD
- estimation of capital and operating costs for transport facilities
- diagnostics and assessment of the technical condition of roads . as well as artificial structures
- certification and inventory of highways .
- planning and distribution of needed materials, technical and financial costs for the repair and maintenance of motorways by means of cutting edge automated customized software systems

DEVELOPMENT

- architectural concepts of construction and improvement of embankments, industrial and residential buildings, sports, scientific, concert complexes;
- construction technology of bridge crossings and transportation . structures
- projects regarding special auxiliary construction and devices (SAC&D) .
- method statements (MS) -
- construction method statements (CMS) .
 - projects for structural renovation, bridge maintenance and transport structures
- traffic management projects .
- road maintenance projects
- design of monitoring systems for civil engineering structures ×.
- technical and economic feasibility study
- design and proof of nuclear defense measures н.
- measures relating environment safety .
- measures regarding fire safety
- measures concerning civil defense in case of force majeure
- measures regarding transportation safety
- н. measures to improve road safety
- strategies, concepts and programs for the development of **1**1 transportation infrastructure
- integrated traffic management schemes
- concepts of toll collection system for toll roads and development of . tariff policies in transport
- financial and economic models

PREPARATION

- tender documentation
- methodological guidelines, recommendations, regulatory and technical documentation
- technological solutions for the protection of nuclear and energy facilities























