

Catalog of services and activities in the construction sector

Railroad construction industry – tracks and subgrades

- Construction, modernization and routine repairs of track and points superstructure.
- Comprehensive design and construction of railway sidings.
- Dismantling of the track superstructure, including disposal of demolition materials and cleanup of the site.
- Construction, modernization and repairs of the railway subgrade:
 - sub-ballasts performed by both fully mechanized methods (which do not require the dismantling of the track superstructure) and classical methods,
 - cutting and filling earthworks,
 - surface and deep drainage works together with all additional infrastructure such as underdrains, separators, evaporation basins, pumping stations, backdrops and other,
 - embankment and cut stabilization in the form of sheet piling, retaining walls, micro-piles, soil nails, safety nets and other.
- Destruction of vegetation, tree cutting, root milling with destruction of the root structure, conventional seeding and hydroseeding. Management of biomass and fertile soil acquired during the works (tree stump, branches, topsoil).
- Rental of on-track machines with service:
 - 08-475/4s universal tamping machine,
 - CSM 09-32 track tamping machine with GEDO kit,
 - SSP 100 and SSP 110 crushed stone scrapers,
 - Atlas 1604 two-way excavators with a wide range of equipment (for example, a mulcher for destroying vegetation, a stump and root milling machine, a drilling rig, a pile driver, rotators, grabs, buckets, vibrating hammers, track tamping units, a rail breaker, an electromagnet, a ballast vacuum cleaner, a slurry machine and other).
- Rental of self-unloading wagons of the following types: gravel wagon 204 Vb (20 units), hopper wagon (4 units) and RS, Res and PWM-15 platforms.
- Rental of other construction equipment with service for example mini-excavators, 11t crawler excavator, off-road truck with hds and basket, plate compactors and other.
- Execution of works with the use of high-performance on-track and subgrade machines at disposal and approved for the Polish market, such as:
 - P-95 track renewal train,
 - RM-900 ballast cleaner,
 - SVV-100 machine for laying subgrades under the existing track grid,
 - RPM RS 900 train for replacing the subgrade and at the same time fully recycling the ballast.
- Laying a sub-ballast and a half layer of ballast without dismantling the track superstructure using the above mentioned SVV-100 machine.
- Subgrade replacement without removing the track superstructure using a set of the aforementioned RM-900 and SVV-100 machines.
- Grinding of tracks using the RG-48 grinder which is at our disposal and approved for the Polish market.
- Expert opinions on the track superstructure and the condition of the subgrade.
- Technical and legal advice on the implementation of railway contracts, including issues such as technology of works, contractual changes, interpretation of contractual provisions or concerning negotiations with the Contract Engineer and the Employer.
- Estimating the cost of railway works along with transportation analyses.
- Comprehensive works on obtaining or updating the approval of a railway siding for use.

Engineering construction industry

- Construction, expansion, reconstruction and repairs (reinforcement, change of load capacity, adaptation to new loads) of small engineering objects such as culverts, small bridges (up to

20m span), small viaducts and flyovers, pedestrian crossings both under and over tracks, animal crossings, retaining walls.

- Reinforcement and repair of earth structures such as embankments and cut slopes.
- Hydraulic works in the area of the above-mentioned engineering objects.
- Design consultations and expert opinions on the condition of engineering objects, technical and engineering consultations, and support in tender processes.
- Demolition of engineering objects, including disposal of demolition materials.
- Paving, reinforcement of quarter cones at engineering objects.
- Construction and installation of railway relieving structures (bridge spans or Swiss-type structures).
- Temporary protection of the active track for the duration of the works (sheet piling with and without anchoring, Berliner walls and other, including original design solutions).

Cubature construction and structural landscaping industry

- Construction, renovation and modernization of railway control room buildings with the necessary outdoor and indoor systems.
- Construction of welfare and storage buildings with accompanying infrastructure in traditional, modular, prefabricated and container technologies. Equipping the listed buildings with all necessary systems.
- Construction and renovation of platforms, ramps and loading areas, along with drainage, power and telecommunication systems.
- Execution of access ramps and stairs to handle pedestrian traffic and bicycle and pedestrian traffic.
- Construction and renovation of passenger shelters and railway stations, installation of station and platform structural landscaping in modular and prefabricated technologies as well as made on the basis of individual designs.
- Installation of fences both made from prefabricated elements and based on individual designs.
- Demolition of enclosed buildings, including disposal of materials.
- Construction of foundations for elements of the drainage system (tanks, pumping stations).
- Execution of the aforementioned works, including preparation of complete as-built documentation.

Road construction industry

- Construction, modernization, repair and dismantling of railroad crossings of all categories together with reconstruction or construction of a new road system.
- Reconstruction and repairs of municipal roads and construction of sidewalks and bike routes.
- Construction of access, technical and haulage roads with aggregate pavement or prefabricated concrete, metal or wooden slabs.
- Execution of special paving to ensure accessibility for people with disabilities to use transportation facilities.
- Design of temporary and target traffic controls, including road safety equipment.
- Implementation of parking lots in the PARK&RIDE system
- Construction of road and yard paving using roller compacted concrete technology.
- Construction of maneuvering and loading yards with track and road pavement in particular for transshipment ports.
- Execution of works related to tram, road and tram pavement construction.

Railway construction industry – control command and signaling

- Construction of semi-automatic and automatic level crossing devices.
- Construction and reconstruction of signal cable lines, including cable ducting.
- Installation of semi-automatic and automatic block signaling systems.
- Installation of station computer, computer-relay and relay interlocking systems.
- Installation of remote control devices for rail vehicles (railway and subway).

- Installation of outdoor control command and signaling equipment, including point machines, trackside signals (main signals, ground signals, outer distant signals, signal repeaters), switch blade position controllers, etc.
- Technical consulting in the field of railway automation.
- Cost estimation of works related to the rail traffic protection and control command and signaling.
- Performance of inspection and measurement works on signaling and telecommunications cables, including damage identification,

Telecommunications construction industry

- Construction and reconstruction of telecommunications and fiber-optic cable lines, including construction of cable ducts,
- Construction of telematics systems in road transportation, including fleet management or heavy construction equipment management.
- Construction of urban traffic management systems, including the linkage of the rail transportation system to the urban transportation system.
- Installation of dynamic passenger information systems.
- Installation of wired communication systems.
- Construction of a visual monitoring system, as well as alarm and fire alarm systems.
- Securing railway structures, engineering objects and power infrastructure facilities.
- Performance of inspection and measurement works on telecommunications cables, including damage identification.

Power construction industry

- Preparation of technical designs for the installation and measurement of connections to the rail of engineering objects and structural landscaping in the railway and tram sector (low-voltage arresters).
- Electrical inspection and acceptance measurements of low-voltage (LV) and medium-voltage (MV) cables, transformer measurements, damage identification of LV and MV cables, lighting measurements, technical acceptance measurements.
- Designs of the power part and catenary with design supervision.
- Cost estimation of the power part and catenary works.
- Foundation and installation of pad mounted transformer and pole mounted transformer stations along with the accompanying infrastructure and commissioning and metering works.
- Comprehensive execution of electrical and I&C systems for the power sector and industry based on entrusted designs or under the “turnkey” formula in the design and build model.
- Design and construction of LV and MV switching stations.
- Installation of transformers in transformer stations.
- Laying of LV and MV cables, construction of LV and MV overhead lines
- Supply of power to construction sites and other temporary container facilities.
- Design and construction of low and medium voltage power networks and connections.
- Foundation and installation of lighting poles (urban, road, railway areas).
- Design and construction of telecommunication and data communication networks for the operation and control of power equipment and systems.
- Lighting and power supply for industrial project sites.
- Execution of piled, prefabricated, cast-in-place foundations for support structures of catenary and signaling equipment by piling or drilling.
- Comprehensive performance of construction and reconstruction works of railway and tramway catenary.
- Power supply works for railway and tramway catenary.
- Installation and repair of electric points heating equipment (cabinets, isolation transformer boxes, heaters, sensors).
- Dismantling of power grid and catenary support structures, together with their foundations and disposal of demolition materials.

- Installation of power grid and catenary support structures/posts, installation of catenary gate girders, lattice tower extensions, installation of suspensions, installation of earthing and connections to the rail.
- Design and construction of emergency power systems including power generators or energy storages.
- Implementation of renewable energy sources with energy storages for industry, services, healthcare and administration.
- Rental of a truck with an HDS crane for transporting, for example, lighting poles, foundations, cables, etc.
- Rental of equipment with service, such as two-way excavators, mini-excavators, backhoe loaders, long haul trucks.

Surveying services for the above-mentioned industries performed by authorized surveyors with various areas of licenses.

- Performance of pre-construction measurements with a survey of the existing condition, also using drone photogrammetry (for example, determining the structure of the site for the purpose of later settlement of the quantity of earthworks for both linear and point construction).
- Measurement works during the performance of works. With regard to tamping of railway tracks, measurement works using the GEDO system.
- As-built survey with preparation and submission of as-built surveying documentation to the relevant units.

In addition, in each of the aforementioned industries, we provide other services such as:

- Comprehensive design of entire scopes of construction works, including obtaining all necessary decisions and permits.
- Design of partial scopes of construction works.
- Supervision of the execution of works (construction site manager/lead discipline engineer, supervising officer, technical consulting services).
- Cost estimation and scheduling of both entire scopes of construction contracts and parts of them.
- Technical and legal consulting related to the performance of construction works.

You are kindly invited to contact us and submit inquiries for the performance of works and services included in the above catalog.

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