Sochi heralds new era in Russian port construction

Andrey Elinson, Deputy Chief Executive Officer of Basic Element

The Sochi Olympics have presented a once-in-a-lifetime opportunity to develop Russia's Black Sea region, boosting the country's construction sector and the local economy. However, getting the materials needed for the Olympic construction to the site efficiently required massive investment in transport infrastructure.

One of Russia's largest diversified business groups, Basic Element, has recently completed the construction of the Sochi Imeretinsky Port – crucial to ensuring construction materials make their way to the 2014 Winter Olympics site. It is the first port to be constructed since the end of the Soviet Union, and the first to begin using advanced technologies to meet 21st century standards.

The Sochi Imeretinsky Port

The port has eight universal docks of up to 9.2 meters in depth, three of which are equipped for tankers. With a cargo berthing front of 1280 meters and a total cargo loading area of 31.8 hectares, the port is well-equipped and has the capacity to receive five million tonnes of cargo annually.

The port is scheduled to receive all the materials necessary to build the Sochi Olympic sites, including ballast, sand and cement. The docks can receive ships with deadweight of up to 10,000 tonnes. Four Liebherr mobile cranes are available, one versatile LHM-280 model and three fast LHM-180s; as well as forklift trucks to ensure that cargo is processed quickly. Stevedoring and customs services, freight forwarding, towing, surveyor maintenance and agency services are all available on site to facilitate the efficient handling of all cargo. Throughout the construction of the port, Basic Element were confronted with a number of issues that required them to implement the industry's latest technology and engineering methods.

Storm disrupted early progress

In December 2009, just over a year after construction of the port began, a rare storm with gale force winds rocked the Black Sea. The storm damaged the port, and the team had no other option than to start some of the construction again from scratch, while simultaneously disassembling and reconstructing other parts of the port. This unfortunate event caused the port's launch to be delayed by a year. Basic Element companies ordered the construction of protective barriers that are high enough to resist waves of up to 10 meters and also reinforced the entire port infrastructure to prevent such damage from occurring again.

Engineering adapts to environment

The Black Sea is one of the world's largest landlocked bodies of water, and is dissected by the Danube Canyon. This underwater canyon is a major erosional trough, which adds to the seismic activity in the area. The strong tidal patterns and varying underwater flows compounded the engineering complexity required for construction activity. Basic Element companies launched a comprehensive investigation into the seismic nature of the Black Sea basin, and catalogued all nearby rivers, coastal waters and deep-water flows. The engineering plans were adapted to accommodate these findings, and ensure the stability of the port infrastructure.

Lowland marsh re-engineered

Historically, construction of the area around the port, the Imeretinskaya Lowland of Sochi, had not been possible due to its marsh environment which is prone to flooding. However, Basic Element companies were able to re-engineer the surrounding land to make it suitable for road construction. This ensured that the port could be connected to Russia's infrastructure network. Basic Element companies undertook a unique, advanced drainage and engineering protection project, which aimed to turn 1200 hectares of swamp land into a site suitable for construction. Previously, high ground water levels, which were predominantly made up of mud flows had made this seem impossible.

The drainage network covers 30 kilometres of territory, and was required to meet strict environmental protection standards to avoid waste water emissions into the Black Sea coast. The project involved partial peat extraction, land filling and consolidation to raise the ground level by three meters across this exceptionally large expanse. In total, the scheme required five million cubic meters of soil. The project was under tight deadlines and needed to be executed quickly. As a result, daily landfill activity reached 27,000 cubic meters of soil brought in 1,700 truck loads with the remainder coming to site by sea.

In order to protect the environment as well as reduce the burden on the region's congested roadways, the company used innovative delivery methods to get the soil in place. For example, vessels carrying sand and gravel mixtures from sea quarries in Abkhazia, further south along the Black Sea coast were unloaded using a pipe 1,000 meters in length. This allowed the transport vessels to remain 270 meters away from the shore. To address the concerns of environmental agencies, Basic Element companies ensured the project complied with all environmental regulations and worked in close cooperation with scientists to monitor the complex geological environment including soil and ground water.

Opportunities for Sochi

The port and the restructuring of the lowland area around it have created new opportunities for the residents of Sochi, as the development has reduced the time required to deliver building materials to the Olympic sites, cutting costs and enabling efficient construction of the entire infrastructure. The port serves to shield the Olympic Village along the coast from waves during storms. This, in combination with the lowland restructuring, has made this part of the Black Sea coast more attractive to developers, keen to take advantage of the region's reputation as a health and wellness resort. The Olympic Village will become an all-seasons resort, called Sochnoe, after the Games, providing further jobs for the local population.

After the Olympic Games, the port will also become a tourism hub. It will be retrofitted as a first-class marina. It is estimated that the marina capacity will reach around 600-700 boats.

Approximate investment into the port retrofitting is estimated at €50 - 100 million, depending on the outcome of the final design plans which are currently under development. Basic Element companies are now working with leading European marina management operators Island Global Yachting on the project. It will handle the marina management, promotion, service development, as well as thetechnical maintenance of yachts.

The future of Russian ports

Sochi is not only located on the Black Sea coast, but also close to the Azov Sea. Together, these two bodies of water process over 35 percent of imports to Russia. Key rail networks and road ways are linked to the region. With Russian imports set to increase cargo turnover by 46 percent by 2016, additional port capacity will certainly be needed. Basic Element, which also has a stake in Vanino Port on Russia's eastern coast, plans to expand its port construction and operation activities to meet this demand.

ABOUT THE AUTHORS

Andrey Elinson joined Basic Element in August 2007 as a Director of Corporate Governance and Internal Control. Before joining the company, he worked for Deloitte & Touche CIS where from 1997 he led various consulting projects and audits at Russian and international companies and subsequently headed an advisory group on financial investigation and economic disputes. From 2004, he supervised the establishment of effective internal control and risk management systems.

Andrey Elinson graduated with honors from the Russian Government's Finance Academy with a degree in Accounting and Auditing. He is a U.S. Certified Public Accountant and a U.S. Certified Fraud Examiner. He holds a Certificate in Company Direction and a Russian certificate in auditing. Andrey Elinson is a member of the Board at the Russian Institute of Internal Auditors and co-chair of Quality commission at the Russian Institute of Professional Accountants.

The Sochi Imeretinsky Port, Russia.

ABOUT THE COMPANY

Basic Element (www.basel.ru) is one of the Russia's largest and most dynamic diversified business groups. Basic Element's companies are within the scope of Oleg Deripaska's business interests. Basic Element, through its affiliates, owns significant stakes in and operates dozens of companies in many sectors, such as energy, manufacturing, financial services, construction, aviation and agriculture. Over 250,000 people work at the Group's companies in Russia, the CIS, Africa, Australia, Asia, Europe and Latin America. Many of them play key roles in their respective market sectors in Russia and internationally, including En+ Group, GAZ Group, Glavstroy, Basel Aero among others.

ENQUIRIES

30, Rochdelskaya Street, Moscow, Russia 123022
Tel: +7 (495) 720-50-25; +7 (495) 720-50-25
Fax: +7 (495) 720-53-95
Email: info@basel.ru