
Support platform for overhead crane

# Mammoet Crane Pad Egremont, AB

Subcontracted by North West Redwater Partnership for this project, Barsi Enterprises, an Alberta aggregate supply and heavy construction company, sought a design solution to construct a large support pad.

An overhead crane capable of supporting extreme heavy loads needed to be erected over a rail line that would bring pre-fabricated mods, tanks and other large plant components to the site. The crane would then be used in transferring the components for installation.

Paradox Access Solutions provided Barsi Enterprises with design and construction of the pad, capable of supporting 5,000 pounds per square foot loads.

Completing the project during the winter presented seasonal challenges. The unique and innovative Tough Cell® design solution was deployed in January of 2014 with no issues or delays due to weather conditions.

# CASE STUDY

LOAD SUPPORT

## PROJECT AT A GLANCE

APPLICATION:
Pad for Gantry Crane Support

LOCATION
Alberta, Canada

DATE OF INSTALL:
January, 2014

CLIENT:
Barsi Enterprises

Addressing infrastructure needs of municipalities throughout the Lac Ste. Anne area, Barsi Enterprises Ltd. provides heavy construction services and supplies quality aggregate products across Alberta and Saskatchewan.

CONSTRUCTION:
Paradox Access Solutions

The authorized Tough Cell® Master Distributor in North America, specializing in the supply and installation of high quality access solutions and services to customers in the pipeline, utility, municipal, general construction and oil & gas industries.

ENGINEERING DESIGN
Stratum Logics Inc.

Global geotechnical engineering design specialists exceptionally proficient in the deployment of cutting-edge geosynthetics for civil engineering across North America in all types of challenging soils and climates.

# Project Highlights

## Pad for gantry crane support over railway, winter construction

### THE CHALLENGE

Two pads were needed to support the crane on either side of the railway tracks. Seasonal conditions existed, such as frozen ground and snow cover.

One side of the pad proceeded with conventional construction techniques while the other was reinforced with Tough Cell® geocells over a granular base.


*Preparation of base during winter conditions.*

### THE SOLUTION

Supply and install Tough Cell® geocell reinforcement over 1.5m granular base course, infilled and finished with additional gravel course

**Total area:** 8 m x 35 m

**Product(s):** 330-150 Type D Tough Cell® geocells; woven geotextile

**Infill:** Total of 450 mm gravel

**Completion:** Capped with 300mm gravel

*Installation and infilling of Tough Cell®*

### THE BENEFITS

The use of a Tough Cell® geocell reinforcement layer greatly increased the bearing capacity of the pad site. In addition, cost savings were realized due to less aggregate required in the Tough Cell® geocell-reinforced section.

The pad area demonstrated no stress failure under subsequent heavy loading. The client benefited from specialized expertise in load support, enabling them to meet the needs of the NWR partnership, a long-standing and vital facility that is one of the cornerstones of oil and gas operations in Alberta.


*Crane installed and in operation.*

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*An industry leader in innovative access solutions, Paradox Access Solutions has provided industrial access and ground reinforcement for the oil and gas, pipeline, utility, municipal and construction industries since 2004. We are COR, CQN, PICS, ISN, ACSA, ARHCA, AVETTA and ComplyWorks qualified, and employ the highest safety standards.*

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*Document ID: PAS-2017-Case Studies-010-09.18.2017*