

## PROJECT PROFILE

**Owner:** City of Port Coquitlam  
**Contractor:** SNC-Lavalin Constructors Pacific Inc.  
**Precast Supplier:** ABC Precast and Ready Mix  
**Distributor:** Brock White Construction Materials

# Coast Meridian Overpass

## Coast Meridian Overpass Project

The Coast Meridian Overpass is a 580 m four-lane cable stayed bridge in Port Coquitlam, British Columbia, crossing an active Canadian Pacific railyard. Construction began in March 2008 and the bridge opened on time to 4 lanes of traffic with lanes for pedestrians and bicycles as well.

The design challenge for the bridge was crossing 50 parallel sets of tracks in the CPR rail yard without disrupting train traffic or rail operations. The solution was to install concrete piers at strategic locations throughout the rail yard, then build the bridge in sections, feeding it forward across the piers until it reached the other side.

The Four-span bridge was push-launched for clear spans of up to 125 meters with no intermediate supports. Push-launch is a system whereby the structure is assembled on a roller launch-pad at one end and then pushed out over the rail yard with hydraulic jacks. The sixth and final span was conventionally placed using a crane.

Five bridge deck sections were delivered over four months, then bolted and spliced together, with the longest sections delivered last. The bridge was clamped, then moved forward a few feet at a time using hydraulic rams. Rollers on the top of the piers smoothed the progress of the growing structure.

## Cementec's Con-Fume™ Silica Fume

ABC Precast and Ready Mix of Nanaimo, BC, was awarded the contract to produce the bridge deck panels for the Coast Meridian Overpass. The order was for 1077 panels (9500 m<sup>2</sup>). This would encompass pouring 11 panels per day, six days a week for over 5 months beginning in April, 2009.

Cementec Industries, the only Western North American manufacturer of silica fume and with experience in large bridge projects with demanding schedules became the supplier of choice to ABC Precast. Cementec in conjunction with its distribution partner Brock White Burnaby could assure ABC Precast of supply and price stability for the entire project. Cementec and Brock White Burnaby supplied over 40 tonnes of high quality silica fume when it was needed where it was needed and for the price it was quoted.

AJ Hustins, General Manager, ABC Precast, was pleased with the supply, consistency and flowability of CON-Fume Silica Fume for the panel pours and the technical expertise provided by Cementec and Brock White.

## Silica Fume

Silica Fume is a pozzolanic material used to produce high performance concrete for increased strength, impermeability and durability. Silica fume reacts with the hydration products of Portland cement forming calcium silicate hydrate gel, which enhances strength and durability by consuming weaker calcium hydroxide.

## Cementec Industries

Cementec is an award winning engineering, materials manufacturer with expertise and experience. Established in 1987, Cementec Industries is a Calgary based company and the only producer of silica fume in Western North America. Cementec is a member of ACI, APEGA and Provincial and State ready mix associations.

## Contact Us

For more information contact Cementec Industries Inc.  
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## Port Coquitlam, BC

