



Elevated Guideway Construction: Launching Truss

The Evergreen Line alignment includes a mix of at-grade and elevated guideways as well as bored tunnel construction.

The elevated guideway generally consists of building foundations and columns and an overhead guideway, followed by track work and systems installation.

Construction of the foundations and columns involves a variety of techniques such as pile driving shafts or excavating to install foundations, then forming and pouring concrete columns to support the overhead guideway.

The overhead guideway segments are manufactured or precast in Richmond by Armttec. The Evergreen Line will use 1,005 precast segments for the elevated guideways. Each segment is "matched cast" specifically to fit with the next segment. This ensures that when the segments are installed the "teeth" on one segment nestle perfectly with the indents on the next segment.

(Continued on Page 2)



Traffic is stopped or detoured as each segment is lifted up to the launching truss with a winch. Once the four high strength steel bars are attached to the segments it is safe for vehicles to travel below.



Guideway segments are manufactured in Richmond by Armttec.

Each of these segments are delivered one at a time on low-bed trucks. A launching truss is then used to lift up each segment with a winch. Four high-strength steel bars are attached to the segments to secure the segments. Tensioned steel cables are then run through the guideway spans pulling the segments together. High strength epoxy is applied between each segment, and a yellow frame is used to prevent surplus epoxy from dripping on the ground.

Once a span is complete, the launching truss can be rolled ahead on the new guideway. This is done by moving the forward leg of the launching truss to the next column top and the guideway installation process begins again.



Top: Tensioned steel cables run through the guideway spans.
Bottom: High strength epoxy is applied between each segment.



Left: Once a span is complete, the launching truss can be rolled ahead on the new guideway.
Right: The launch truss forward leg is moved to the next column top.

If you would like to learn more about the Evergreen Line Project or have your name added to the information email subscription list, please visit the Project Office (2900 Barnet Highway, Coquitlam) weekdays from 8:30 am to 4:30 pm or contact us:

Email: info@evergreenline.gov.bc.ca
Phone: 604-927-4452
Website: www.evergreenline.gov.bc.ca



@TranBC



www.facebook.com/evergreenline