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SECOND ANNUAL GREAT CANADIAN PROJECTS ISSUE

Northstar Sharp's installed nearly 12,000 piles and finished four months ahead of schedule; their work on the Fort McMurray West 500-kV Transmission Project kicks off this year's celebration of Canadian deep foundations projects

DIGGING INTO CONSTRUCTION EXTRAS





Augustana Residential Tower

To date, Doublestar Drilling's deepest lagging system

Submitted by Doublestar Drilling

oublestar Drilling (DSD) was awarded the Augustana Residential Tower project during the fall of 2017. This anchored soldier pile and lagging shoring system was located in Edmonton, Alta. With a total excavation depth of 19 metres, this became DSD's deepest lagging system to date.

Their piling crew was equipped with DSD's Soilmec SR65 drill rig to ensure the design depths for the soldier piles were met. In under two months, DSD completed the H-beams for 68 soldier piles to depths of 23 m.

DSD's Soilmec SM14 tieback drill installed approximately 176 anchors to lengths of 18 m with a 36-millimetre DSI threadbar. Prior to anchor installation, two pre-production test anchors were completed to test the anchor load. Based on these tests, the remaining anchors were to be stressed up to 133 per cent of their design loads. By the fifth row of tiebacks, the loads were up to 900 kilonewtons, which required using DSD's 200-ton jack to meet the project's standards.

Due to the size of the project's footprint, this site quickly became a high-volume area, keeping safety DSD's top priority. DSD worked with Pagnotta Industries on the pre-project planning to ensure no safety steps were missed and everyone was on the same page. Daily site safety meetings, organization and communication were the key essentials of making Augustana Residential Tower project an overall success and incident-free.