

Cargill Canada

Regina, Saskatchewan, Canada

Keller provided a value-engineered auger cast design for a canola processing facility in Saskatchewan.



The project

Canada is the largest canola-growing region globally, with Saskatchewan producing over 50% of that. Cargill, a large agricultural producer, constructed a new canola processing facility, increasing production to 1.1M tons (1M metric tonnes) annually. The proposed facility will include large structures, including storage bins, tanks, underground structures, internal rail tracks, and an overpass bridge and embankment ramp, but the low-bearing soils would not offer the necessary support.

The challenge

Heavy summertime rains led to a heightened safety awareness on working platforms. Additionally, work was fast-tracked due to project milestones for the next construction phase.

The solution

The geotechnical engineer proposed a driven pile design. However, Keller offered an alternative design that provided cost and schedule savings that was accepted by the client. The design included:

- 3971 CFA (auger cast) piles installed to depths of 30 ft to 89 ft (9 m to 27 m)
- 220 linear ft. (721 linear m) of contiguous pile walls to provide shoring
- 282 driven piles in an area that couldn't be redesigned due to high-tension loads

Split into three phases, Keller used its local resources to add another rig and crew on-site to meet the critical schedule. Keller performed several load tests, ensuring the design met all project requirements and specifications.

Project facts

Owner(s)

Cargill

Keller business unit(s)

Keller

Main contractor(s)

Graham infrastructure Lp

Engineer(s)

Keller

Solutions

Deep foundations
Support of excavation

Markets

Commercial

Techniques

CFA (auger cast) / ACIP piles
Driven piles
Secant or tangent (contiguous) piles

Email address

info@keller-na.com

Phone number

1 (800) 456-6548