



ALDRESHOT EAST QUARRY BACKGROUNDER

ABOUT MERIDIAN BRICK

Meridian Brick, Canada's largest manufacturer of clay brick, has operated within the City of Burlington for nearly 60 years. With its three clay brick plants and four quarries in Burlington, Meridian Brick produces approximately 45% of Canada's clay brick. Overall, Meridian Brick produces approximately 55% of the clay brick manufactured in Canada.

Meridian Brick is an important business and community partner within Burlington and has a local economic investment of more than \$150 million.

Meridian Brick employs approximately 164 people at three clay brick plants and four quarries in Burlington, over 70 employees at the Aldershot Quarry with an average length of employment being almost 20 years.

Meridian Brick has always strived to be – and will continue to strive to be – a good corporate citizen. Among other charitable contributions, Meridian Brick has supplied brick to clad approximately 140 Habitat for Humanity homes throughout the GTA. At the Tansley Quarry, Meridian Brick constructed a pumping station, communal reservoir and pipeline network to provide neighbours with fresh, municipal-quality water, at no cost. Meridian Brick values excellent relations with its neighbours while also continuing to provide high-quality Ontario brick and good-paying, middle-class jobs for Burlington residents.

THE ALDRESHOT EAST PROJECT

In 1999-2000, Meridian Brick (then Canada Brick) invested \$60 million in a new Aldershot Brick Plant. This investment was based on the long-term shale reserves available in the area, including those at the Aldershot Quarry in its West, Centre and East cells.

The Aldershot East project, which will open the third cell of the Aldershot quarry, will help sustain this existing investment in Burlington's economy. This project will support the retention of approximately 70 jobs.

This is a fully licensed quarry and has been so for more than 40 years, though quarrying has taken place here since 1904. Meridian Brick purchased the Aldershot Quarry in 1990. In 2010, a revised Site Plan was approved by the Ministry of Natural Resources and Forestry to meet Provincial standards. The Aldershot Quarry is fully compliant with the Aggregate Resources and Endangered Act and the Greenbelt Plan.

About 38% of the existing shale reserves at the time of the Aldershot brick plant's opening were located in the East cell of the quarry. Now, 17 years later, the West and Centre cells of the Quarry are almost depleted. Meridian Brick needs to develop Aldershot East to keep the Aldershot brick plant operating.



In 2000, the Tyandaga West subdivision was registered and the houses on Westhaven Drive began to be erected. Prior to the establishment of the subdivision, dust and noise studies were undertaken for the proposed area. These studies were approved by the Ministry of the Environment, and Meridian Brick agreed to implement certain controls recommended to allow for the subdivision to be developed.

RESPONDING TO THE COMMUNITY

Existing licenses and approvals permit Meridian Brick to proceed with the Aldershot East project. However, having heard many of the comments from area residents at public meetings and in ongoing discussions, Meridian Brick is undertaking new and updated studies and making adjustments to the excavation plan in order to respond to residents.

The following issues are being addressed:

- **Buffer zone and proximity:** Excavation of the north corner of the East site – the corner closest to the Tyandaga West neighbourhood – will not take place until late in the site's life, in approximately 15 to 20 years. This setback will ensure approximately 90 – 150 metres of distance between fencelines and the quarry, an increase from 39 metres. This last portion of the site, when excavated late in the site's life, will be rehabilitated quickly.
- **Rehabilitation:** The site will be progressively rehabilitated and forested as the site is excavated. Meridian Brick has prepared an ongoing progressive rehabilitation plan to commence within three years of initial East Quarry excavation. This includes grassing of slopes as well as tree planting and grading while the site is being actively quarried. This means the East Quarry will be restored to a fully treed and forested landscape. In all, approximately 29,000 trees will be planted to rehabilitate the Aldershot East and Centre quarry.
- **Dust:** A dust assessment study for the Aldershot East extraction was undertaken at the time the Westhaven subdivision was developed and found no health risk to the neighbourhood; even the most conservative estimates found dust levels below Ontario's provincial air quality standards, based on an extraction rate of 400,000 t/yr. (Currently Meridian Brick extracts 200,000 t/yr.) Currently, Meridian Brick is working to conduct an updated dust and toxicology study.

Preliminary results have found that silica and particulate concentrations emitted from Meridian sources alone are predicted to be significantly less than both acute and chronic health-based benchmarks, even under worst-case conditions. Furthermore, cumulative silica and particulate concentrations are predicted to be less than both the acute and chronic health-based benchmarks at all receptor locations. Potential health risks to individuals in the surrounding community related to silica and particulate emissions from the proposed expansion are expected to be negligible.



Once quarrying operations begin, a dust monitoring program specific to the East cell will be implemented and results from this program made available to the City of Burlington, Region of Halton, Ministry of the Environment and Climate Change and Ministry of Natural Resources and Forestry.

- **Noise:** In 1996 and 1998, SS Wilson Associates Consulting Engineers conducted a noise study regarding the Aldershot quarry and the planned Tyandaga West subdivision, finding the subdivision compatible with the quarry. Responding to resident concerns, Meridian Brick retained SS Wilson in 2015 to update the noise study. This study addressed not only work and equipment noise, but also tree clearing and construction noise as requested by the City of Burlington. The study also accounted for the new bulldozer and loader equipment utilized by the company. This investigation found that shale operations will achieve applicable sound criteria, with predicted sound levels for the extraction to be in compliance with the Ministry of the Environment and Climate Change's strictest sound level criteria.

The study noted that the actually measured ambient sound levels in the area generated by wind around the trees south of the neighbourhood are comparable to the extraction noise. The study also found that the existing berm and substantial intervening foliage are adequate for existing and future noise control.

Based on resident feedback in 2015, Meridian has replaced back-up beepers on earthmoving equipment with a more silent version. There is no blasting or processing at the site, and work on the site is limited to between 7 a.m. and 4 p.m., with no work taking place on holidays or weekends. Notably, as work proceeds further below grade, noise levels will diminish.

- **Endangered species:** Meridian Brick is required to identify and protect any species at risk. Meridian Brick has identified some species, mostly plants, and retained ecologists to prepare a mitigation plan. At least one species, the American Colombo, will be protected by reducing the extent of the proposed excavation. These plants, other than the American Colombo, will be relocated to designated areas long before the rehabilitation begins.
- **Salamander habitat:** Acknowledging concerns from some residents regarding the potential presence of a species at risk salamander, dwelling in the area, Meridian Brick contracted a team of ecologists to conduct salamander surveys. The survey has not to date observed any species at risk – ie. Allegheny Mountain or Northern Dusky Salamander or Jefferson Salamander. Further surveys will be undertaken in 2017, including dip net testing for Dusky Salamander larvae.

While some Red-backed Salamanders have been caught and released, no species at risk have been found in the quarry.

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