

## Noise Impact Study Highlights

Many new land uses can result in additional noise above normal background sound, and a sand and gravel operation is no exception. Any extra noise from the new use must fall within guidelines established by the Ministry of Environment, Conservation and Parks.

A noise impact analysis modelled the predicted sound from the proposed Shantz Station Pit at 11 receptors around the perimeter of the operation. These receptors included the nearest homes and yards of property owners. Excluded from the study was the home and yard owned and occupied by the farmer leasing the land for the pit operation.

The study needed to determine what the ministry considers “predictable worst case impacts” and how to mitigate those impacts to acceptable provincial standards.

It showed that in an unmitigated situation with no noise controls in place, the highest, worst-case noise impact would be at one home and yard at 1472 Village View Road. This home is owned by the farmer of the proposed pit lands. It was predicted that the sound levels in the home at this location during the pit operating at maximum capacity would be 19 decibels louder than acceptable limits (of 45 decibels) in daytime hours, and six decibels louder than acceptable limits (of 40 decibels) during nighttime (including early morning) hours.

The proposed hours of operation of the pit would be from 7 a.m. until 7 p.m. for extraction and processing, and from 6 a.m. until 7 p.m. for loading and shipping, from Monday to Friday. Loading and shipping would occasionally occur on Saturdays from 7 a.m. until 3 p.m. with no extraction and processing on those days. The pit would not be operational on Sundays. On rare occasions, after notification to Woolwich Township, loading and shipping might occur outside normal hours, for projects such as nighttime road construction.

The study recommends that noise impacts be reduced to acceptable levels by constructing sound barriers of up to 11 metres high around the stone crusher and processing plant, and near receptors. At the most affected receptor on Village View Road, the daytime sound in the house

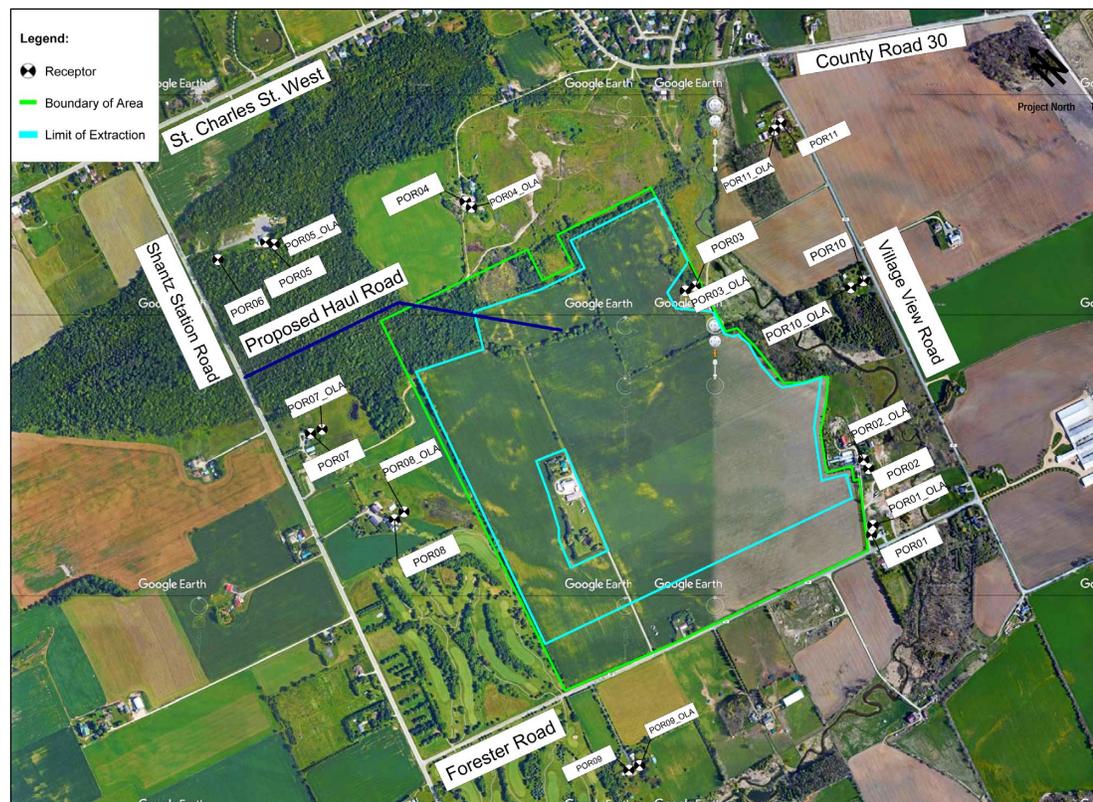
would be reduced from 64 to 45 decibels, and from 46 to 31 decibels when only loading and shipping are occurring.

Also recommended is that construction equipment on the site comply with ministry sound limits and that quiet, broadband alarms be used instead of noisy, back-up beepers. Capital has committed to complying with the limits and to using the broadband systems on its loaders, along with implementing the other recommendations in the report.

On the proposed haul route south from the proposed pit entrance along Shantz Station Road, the sound impacts gradually decrease as compared to the background noise as the trucks approach Highway #7. The calculations were done on a worst-case basis to determine the highest possible noise impact from the proposed pit. They assume the peak hour pit truck volume occurs during the hour with the lowest level of background traffic.

Shantz Station Road is a Regional road, designed for truck traffic, and the report notes that this haul route “results in minimum noise impact” and is the preferred option.

Finally, the study recommends that noise measurements be taken by a qualified acoustical engineer once a pit operation is underway to ensure guidelines are met.



A simplified map from the Noise Impact Analysis Report shows the 11 receptor locations at homes (POR) and in the backyards (POR\_OLA) near the proposed pit.