

Report

Noise Levels at 42062-274 Ave West, Foothills County, Alberta

Scope:

The purpose of this report is to investigate noise levels created in the welding shop, located at 42062-274 Ave West, Foothills County, Alberta while typical work is being performed. The noise levels in the shop will be compared to common noise made during a typical day at the same address. This will be referred to as “ambient noise” for the purposes of this report.

Method:

Ambient noise readings will be taken outside, toward the front of the property, parallel to the welding shop, using a high-precision noise meter (Tadeto SL720), measuring decibels in dBA, with an accuracy of 2.0dB.

These ambient readings will then be compared to readings taken 25, 50, and 80 feet from the closed shop, while work is being done. This work includes construction of the mezzanine structure inside the shop. More specifically, grinding, welding, cutting, threading and fitting.

Please note: all required county permits are in place for this construction to be completed.

The meter will be set to take maximum readings of 10 minute intervals at a slow setting.

Data:

Ambient noise level (no work in shop)

April 11-2025

Average wind speed – 17.5 km/hr

Time	Maximum noise level in a 10 minute interval (dBA)
12pm-1pm	80.0
1pm-2pm	75.0
3pm-4pm	70.6
Daily average:	75.2

Ambient noise level (no work in shop)

April 14-2025

Average wind speed – 10.3 km/hr

Time	Maximum noise level in a 10 minute interval (dBA)
9am-10am	67.0
10am-11am	70.0
11am-12pm	68.0
12pm-1pm	67.7
1pm-2pm	68.3
2pm-3pm	73.6
3pm-4pm	81.3
Daily average:	70.8

Work noise level (work
being done in shop)

April 16-2025

Average wind speed – 20.0
km/hr

Time	Distance from outside south wall of shop (feet)	Maximum noise level in a 10 minute interval (dBA)
12:30pm (ambient, before shop work)	25	60.0
	50	45.0
	80	55.0
	120 (closest to road)	66.0
12:42pm-12:52pm (working in shop)	25	66.1
12:52pm-1:02pm (working in shop)	50	63.0
1:04pm-1:14pm (working in shop)	80	46.0

Summary:

When comparing ambient noise levels on the property, we can conclude that the noise produced by typical work in the welding shop does not exceed the ambient noise of the surrounding area.

Average daily noise was observed to be about 70-75 dBA during any given time with no work being performed in the shop. The maximum noise produced outside while work was being performed within the closed shop was 66.1 dBA at 25 feet, 63.0 dBA at 50 feet, and 46.0 dBA at 80 feet.

During the data collection of ambient noise, without work being performed in the shop, typical sources of noise were observed. This included passing vehicles, specifically personal trucks and cars, trucks towing various trailers, dump trucks, tractors, motorcycles and large grain haulers, as well as people talking, dogs barking, etc...