

Acoustic Field Test Report

PURPOSE:

It is the intention of this report to illustrate the performance of the ModularWalls system in real-world applications. These testing environments were selected due to their ability to offer easily identifiable and comparable scenarios. This included:

- Origin of Sound, its Type and Extent
- Geographical Layout
- Wall Configuration

SCOPE:

This information is to be used as a guide and in conjunction with the independent laboratory testing that has been performed on ModularWalls products. The test results reported below are an accurate account of the locations used. Should specific values be required for an application of the ModularWalls system, it is recommended that a formal acoustic analysis be undertaken for that environment.

TESTING EQUIPMENT SPECIFICATIONS:

Digitech Model	QM-1589
Standard applied	IEC651 type 2, ANSI S1.4 type2
Frequency Range	31.5Hz-8kHz
Measuring level range	30-130dB (Low range 30-100dB used for these records)
Frequency weighting	A/C (A used for these records)
Microphone	½" electret condenser
Time Weighing	Fast 125mS, Slow 1 Sec (Slow used for these records)
Accuracy	+/-1.5dB

TEST 1 – HIGHWAY ROAD NOISE:

Origin Source	6 lane highway (70Km/hr)	
Location of Wall from Origin	5.5 Meters	
Wall Type	4.0 Meter high Barrier Type Wall (75mm panel)	
Readings at exposed side	Steady fluctuation	71-81dB
	Peak Reading	84dB
	Minimum Reading	68dB
Readings at shielded side	Steady fluctuation	58-60dB
	Peak Reading	61dB
	Minimum Reading	56dB

NOTES:

Further readings were taken at a distance of 5 meters back from the shielded side of the wall (approx 10.5M from origin). Readings at this distance displayed a fluctuating range of 1 to 2dB higher than at the shielded face of the wall. Readings at greater distances from the shielded face displayed only ambient sound levels and were not influenced by the fluctuating decibel range of the highway.

TEST 2 – LAWNMOWER DOMESTIC APPLICATION:

Origin Source	2 Stroke Lawnmower	
Location of Wall from Origin	2 Meters	
Wall Type	2.1 Meter high Traditional Type Wall (75mm panel)	
Readings at exposed side	Steady fluctuation	90-91dB (Min/Max reading also)
Readings at shielded side	Steady fluctuation	62 dB (Min/Max reading also)

NOTES:

A secondary reading was taken at a distance of 5 meters back from the shielded side of the wall and a steady reading of 63 dB was recorded. This increase of approx 1 dB is consistent with the Highway values shown in Test 1. The Peak and Minimum readings for the lawnmower test are not listed due to them being identical to the steady output values.