

Sound Masking Presentation

Jonathan Metcalfe, B. Comm (hons.), PSP

Security Sales Consultant

National Industrial Communications

February 15, 2018



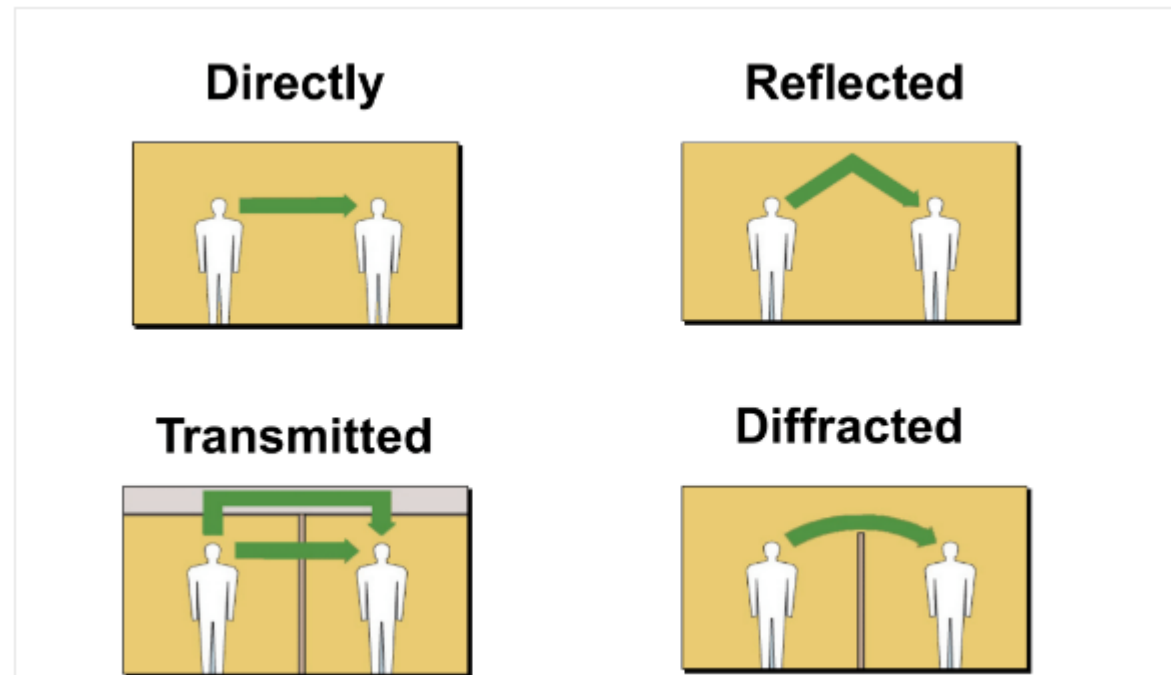
Sound Masking Agenda

- What is Sound Masking?
- How Sound is Generated
- How do we Stop Sound
- How Does Sound Masking Work?
- Developments in Sound Masking
- Recent Application
- Sound Masking Installation Considerations
- Where Would you Install Sound Masking
- Installations Do's and Don'ts
- What Can Sound Masking Also Do?
- Questions and Answers

What is Sound Masking?

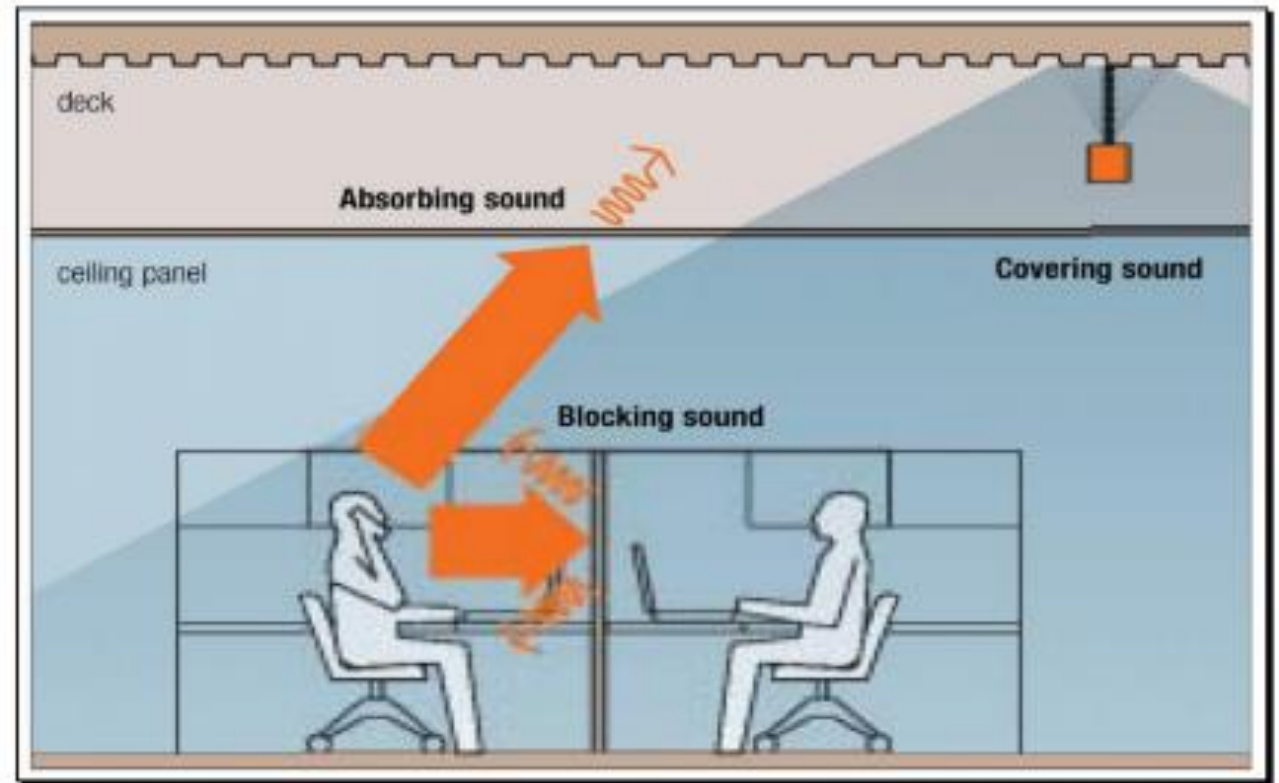
- Sound Masking is the process of adding low level background sound to an environment to promote acoustical privacy and freedom from distractions
- Metcalfe's Sound Masking Tidbit
 - It is believed that one of the earliest examples of sound masking is the Roman's use of water fountains to mask the sound of chariots on cobblestone streets

How Sound is Generated

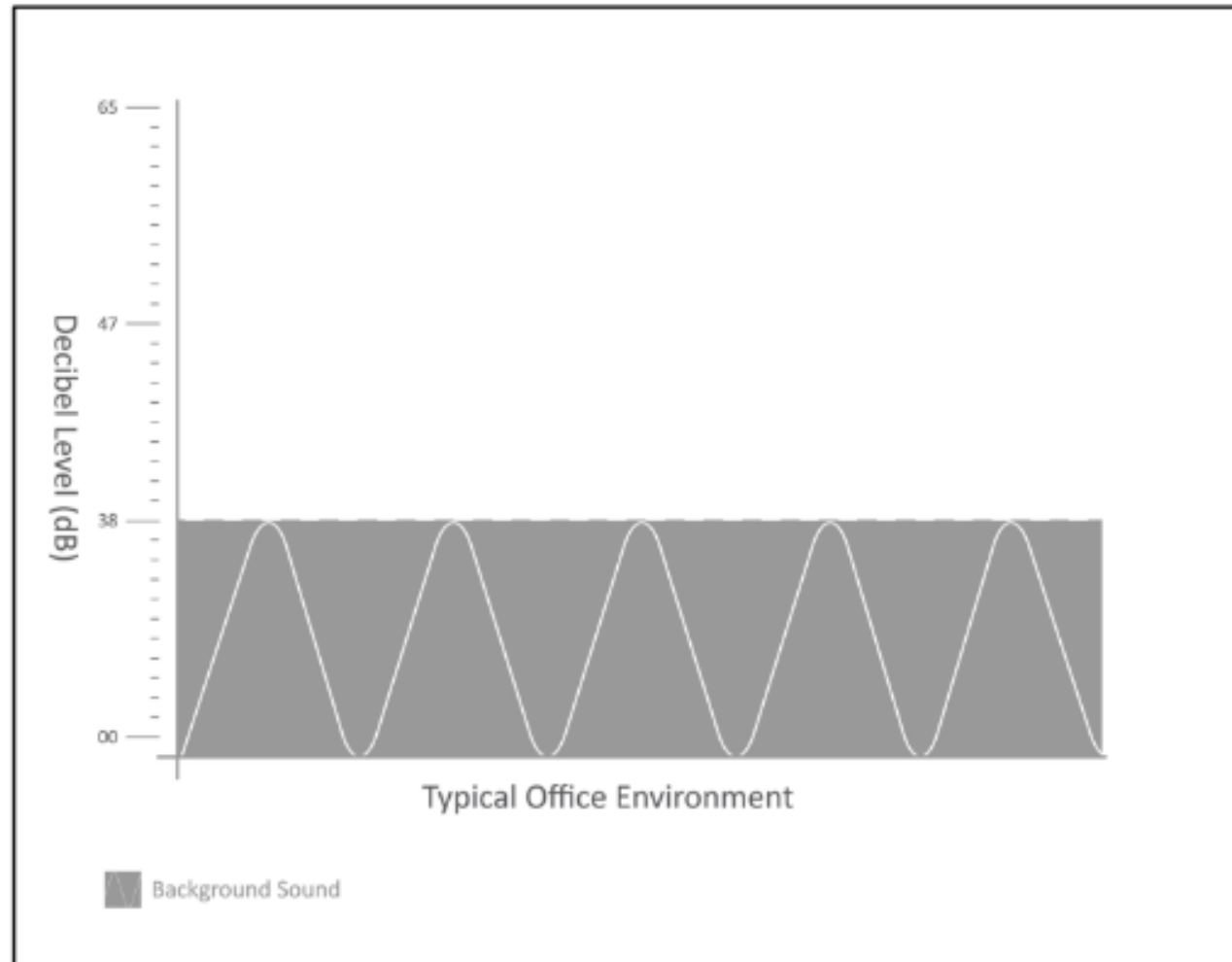


How do we stop sound?

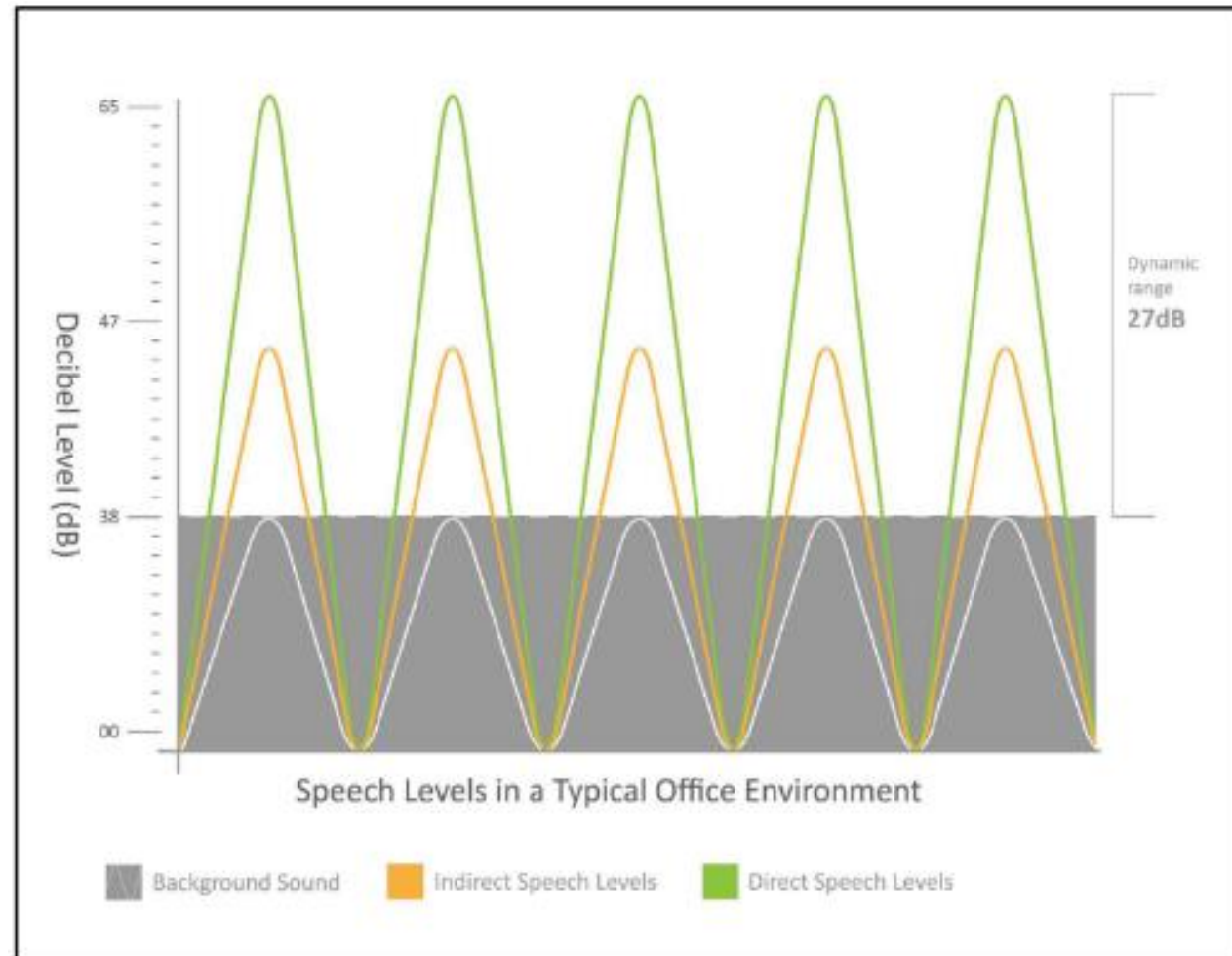
- Remember the ABC's of Sound
 - **A** – Absorb
 - **B** – Block
 - **C** – Cover



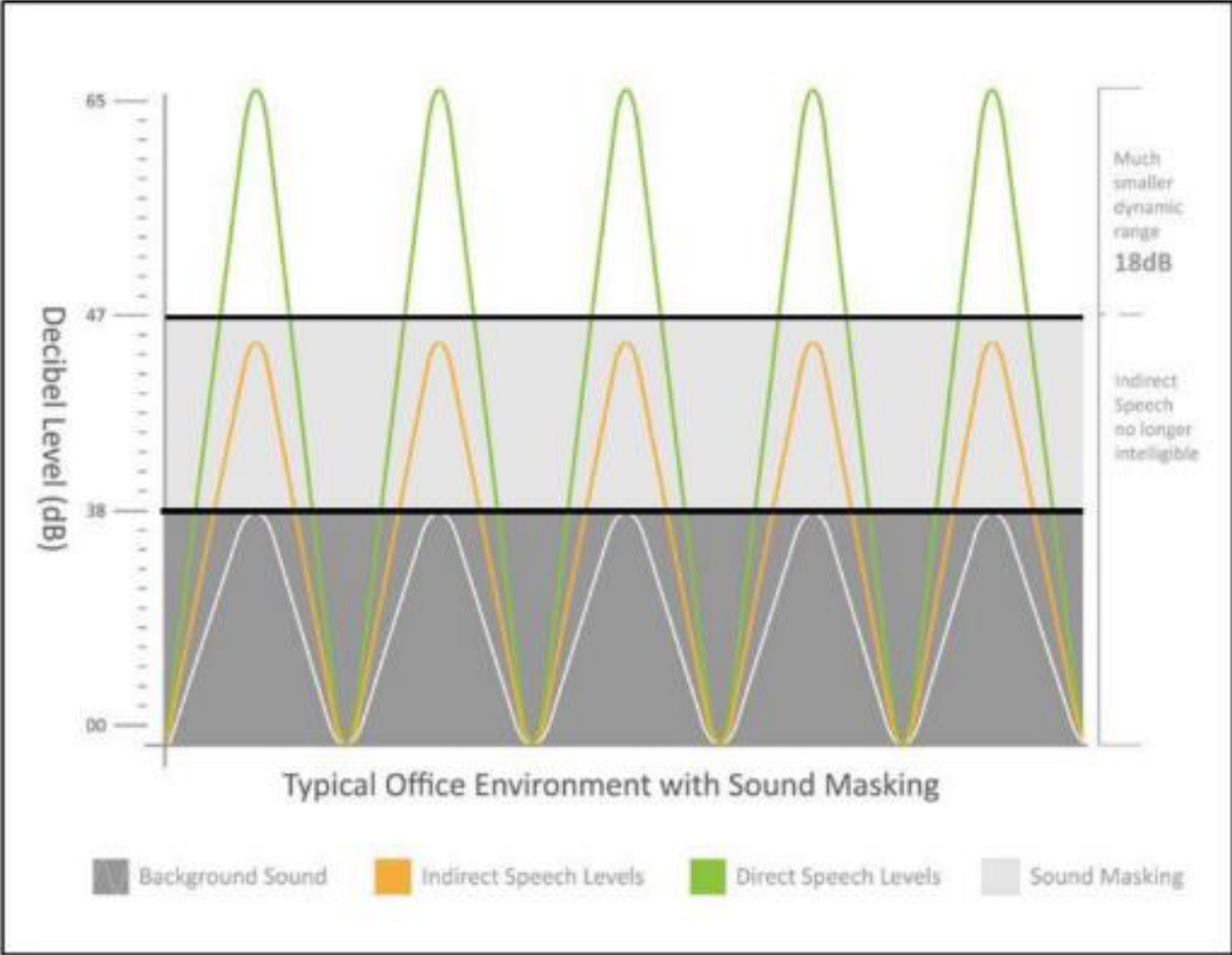
How Does Sound Masking Work?



How Does Sound Masking Work?



How Does Sound Masking Work?



Developments in Sound Masking

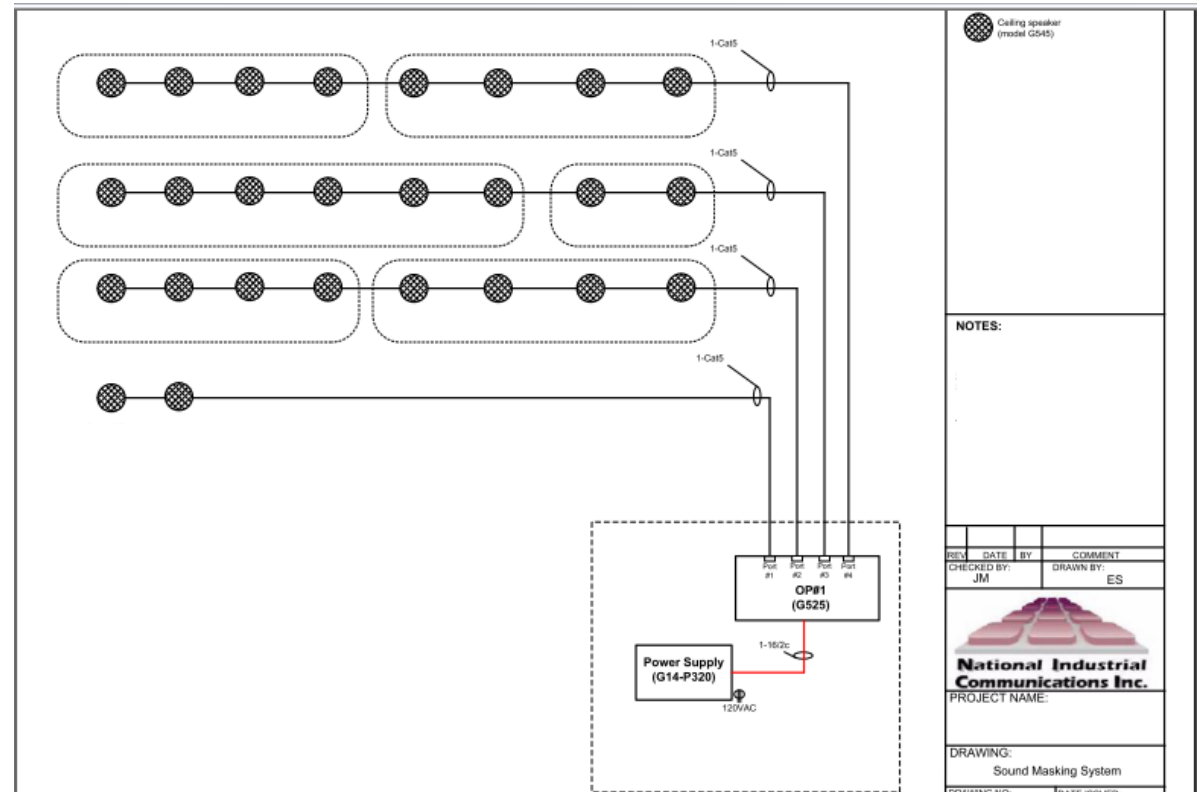
- Traditional – Analog System
 - Parts involved:
 - Power Supply
 - Mixer
 - Amplifier
 - Control Module
 - Mid Line Boosters
 - Speakers
 - 18 Gauge 2 or 4 Conductor Cable
 - 16 Gauge 2 Conductor Cable (Shielded)
- IP or Addressable System
 - Parts involved:
 - Power Supply
 - Operating Platform
 - Speakers
 - Cat5 or Cat6 Cable

Developments in Sound Masking

- Traditional – Analog System
 - Pros
 - Small installations (under 10 speakers) can be very reasonable
 - Cons
 - Home run Wiring Method
 - Voltage loss over long runs
 - Service can be a nightmare
 - Size of system is usually determined by size of amplifier or number of available channels
- IP or Addressable System
 - Pros
 - Simple to install (especially on large installs)
 - Star Configuration Method with Daisy Chained Speakers
 - A lot more flexibility (adjustments)
 - Cons
 - Smaller installations can be pricier compared to Analog (under 10 speakers)

Recent Application

- Recent Sound Masking Install
 - Approximate 6,000 Square Feet Office
 - “L” Shaped Layout
 - 12 Offices, 3 Boardrooms, Reception Area, Bull Pen (Open Area), and accompanying facilities (Staff Room/Kitchen)



Sound Masking Installation Considerations

- Floor Plan Layout
- Wall Construction
- Workstation Partitions
- Ceiling Height & Type
- Plenum Space
- Carpet
- Door Seals
- How much Glass will be in the building

Where Would you Install Sound Masking

- Government Organizations
- Pharmacies
- Doctors Offices
- Legal Firms
- Call Centres & Operations Centres
- Offices – Boardrooms, Meeting Rooms, etc
- Any location where personal information is discussed or exchanged

Installation Do's and Don'ts

- Don't just plot speakers at random intervals
- Do – Put speakers in areas where they can be easily serviceable
- Don't – Install speakers facing each other (e.g. Opposite Walls)
- Do – Ensure that a qualified system integrator helps designs and installs your system
- Do – Perform at least yearly preventive maintenance on the system
- Don't – When adjusting volume adjust for an entire area not just one speaker
- Do – When setting operating levels you are aiming for it to be just barely noticeable
- Do or Don't – Inform Staff that Sound Masking is in effect

What Can Sound Masking Also Do?

- Tied into Public Address Speakers
- Telephone Paging
- Background Music
- Multimedia Presentations (e.g Boardroom Presentations)
- Mass Evacuation Procedures/Announcements

Questions and Answers

Jonathan Metcalfe, B. Comm (hons.), PSP

Tel: (204) 783 6688

Cell: (204) 981 9027

Email: jonathanm@nici.mb.ca