CITY OF SCOTTSDALE

Happy Valley Road

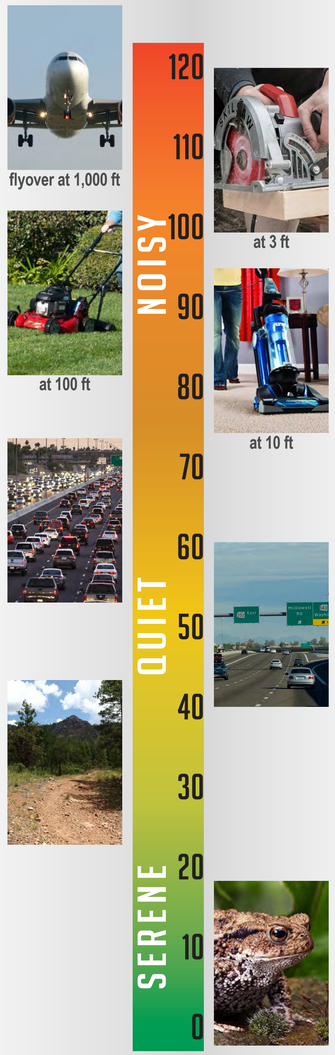
Pima Road to Alma School Road

NOISE ANALYSIS

PROCESS

1. Identify noise sensitive areas (homes, churches, etc.) of a potential **traffic noise impacts**
2. Determine existing noise levels by conducting noise measurements
3. Predict future noise levels and identify impacts of 64-dBA or more or if noise levels exceed existing by 15-dBA. **WE ARE HERE**
4. Evaluate and Propose abatement measures:
   - ***City of Scottsdale allows a maximum of $60,000 per benefitted property for at least a 5-dBA reduction***
   - *Noise levels must be reduced to 64-dBA or lower*
5. Noise abatement measures include:
   - *Noise walls, berms or a combination*
   - *Acquisition of Right-of-Way to provide a Buffer Zone*
   - *Change to Horizontal or Vertical Alignment*
   - ***Traffic Management Measures (Control Devices or Traffic/Vehicle Restrictions)***
     - *Break the Line-of-Sight*
     - *Noise abatement measure modeled out to 20 year estimations*

COMMON INDOOR & OUTDOOR NOISE LEVELS



NOISE SOLUTIONS

- Barriers are designed to reduce noise to an acceptable or tolerable level.
- Noise barriers along a roadway are most effective for homes within about 300 feet of the closest travel lane.
- Noise walls range in height from 8 to 20 feet, depending on what height is needed to reduce the noise to an acceptable level.
- An earth berm (a large mound of packed dirt usually with landscaping) will provide slightly more noise reduction than a vertical barrier wall of the same height.
- Vegetation is another noise reducing element. Typical roadside landscaping does not affect noise levels.
- A noise barrier that breaks the line of **sight between the source (traffic) and** the receiver (residents) reduces noise by approximately 5-dBA. Each additional foot of height reduces the noise level by another half decibel.

RPA RITOCH-POWELL & Associates

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