



Noise Ordinance Overview, Enforcement Challenges, and Recommended Solutions

Chapter 17 of the Code of Ordinances of the City of Fort Lauderdale

August 17, 2021

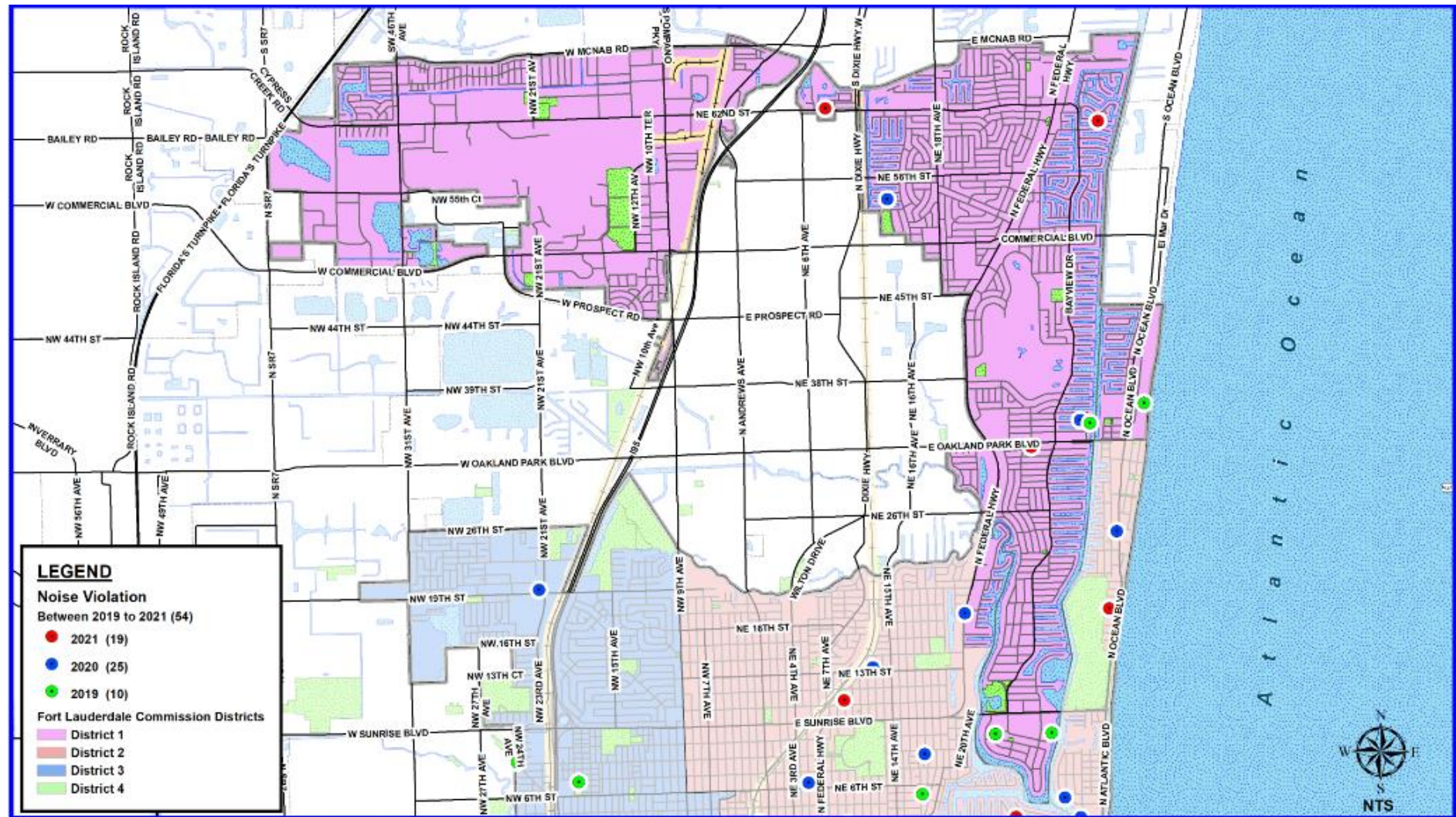




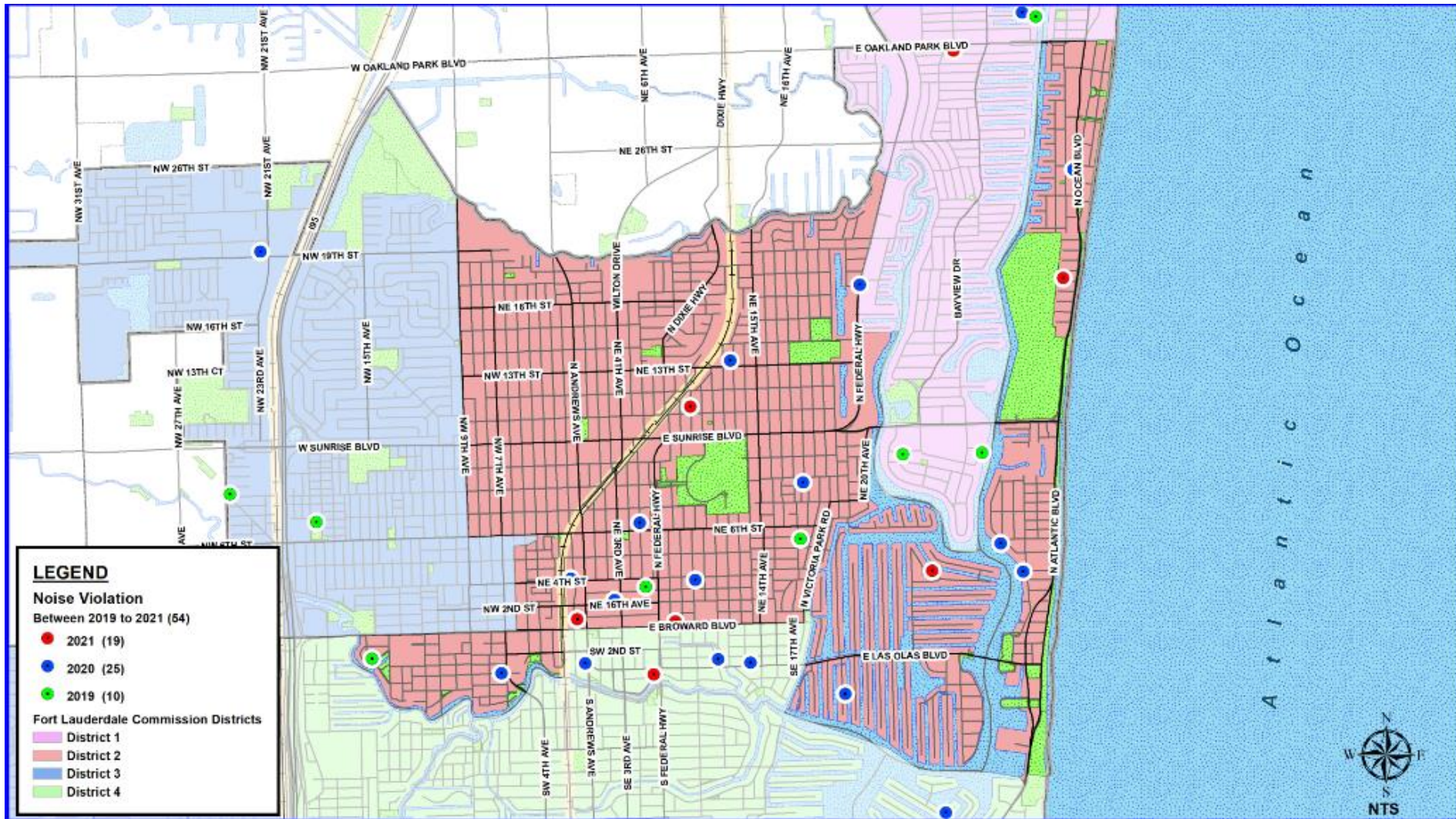
TYPES OF NOISE COMPLAINTS

- Construction
- Leaf blowers
- HVAC equipment and pool pumps
- Barking
- Vehicles
- Vacation rentals
- Activity in Regional Activity Center

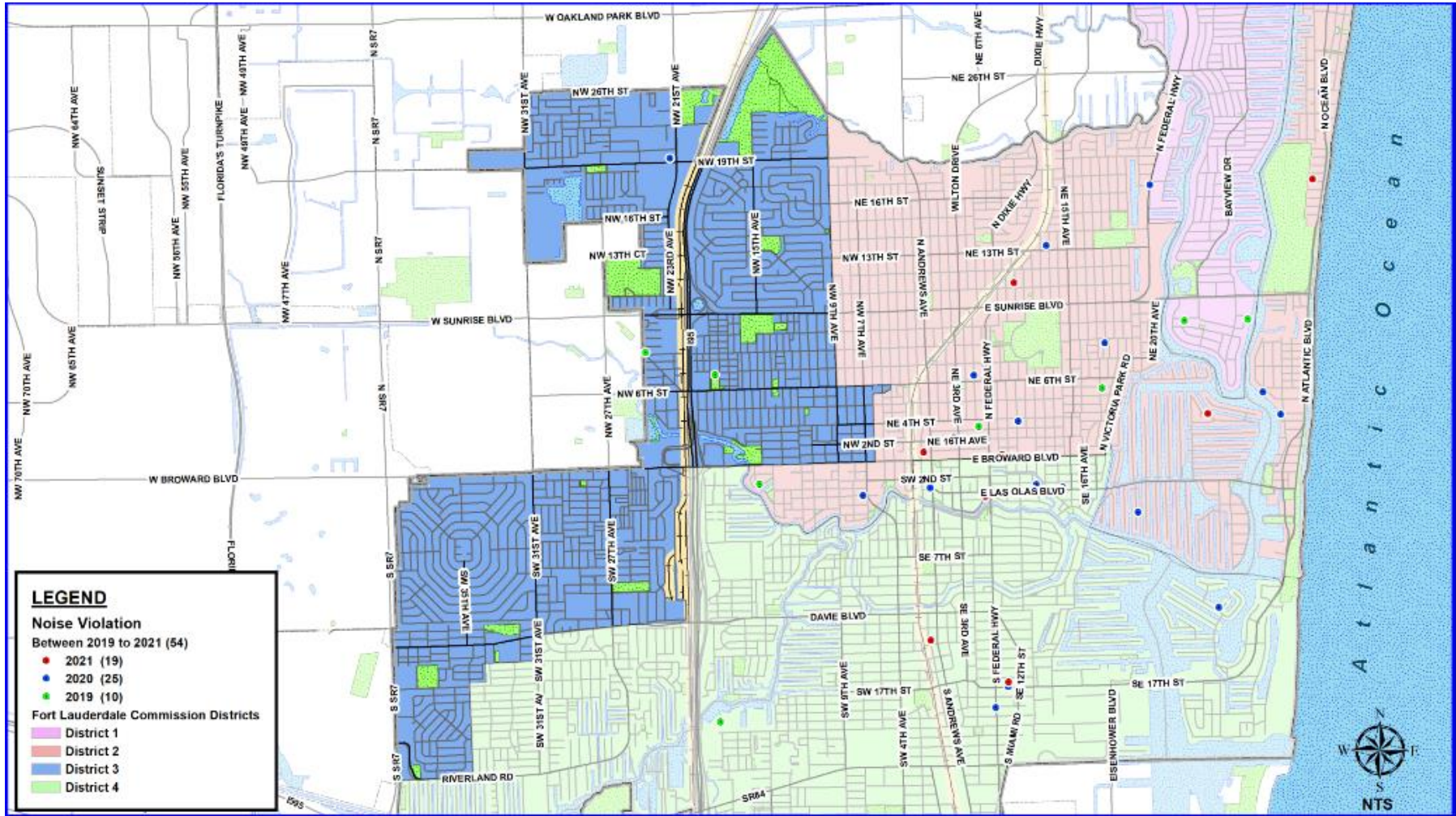
CITY COMMISSION DISTRICT 1



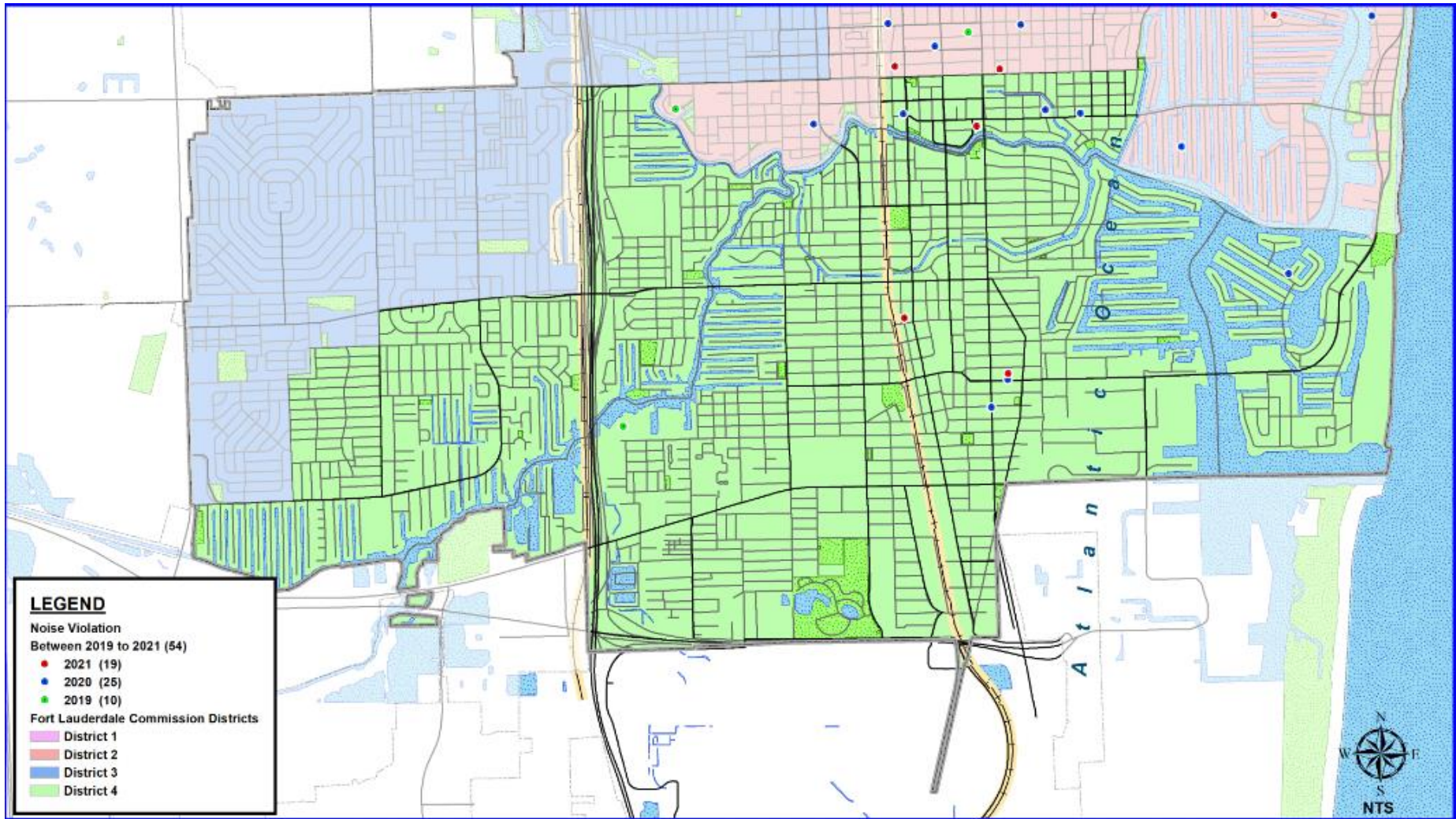
CITY COMMISSION DISTRICT 2



CITY COMMISSION DISTRICT 3



CITY COMMISSION DISTRICT 4





OUR RESOURCES FOR SOUND MEASUREMENTS

EQUIPMENT:

- Handheld sound measurement devices
- Professional sound meters from Quest Technologies (model QC-10)
 - These devices are calibrated annually
- Bruel & Kjaer or a similar company for professional sound monitoring services

STAFF TRAINING AND/OR CERTIFICATION:

Florida Association of Code Enforcement (FACE) Noise Measurement Seminar



UNDERSTANDING A & C SOUND WEIGHTING

- dBA is used for mid-range frequencies
 - What our ears hear as normal sound
 - Musical instruments are typically midrange

- dBC is used for low and high frequencies
 - Used for very loud sound (i.e., amplified sound)
 - Thunder and the tuba are examples of a low frequency sound
 - A bird chirping is an example of a high frequency sound

Note: The Code only directs the type of weighting the officer must use for one type of measurement (HVAC equipment)



dBA	Example	Home & Yard Appliances Workshop & Construction	
0	healthy hearing threshold		
10	a pin dropping		
20	rustling leaves		
30	whisper		
40	babbling brook	computer	
50	light traffic	refrigerator	
60	conversational speech	air conditioner	
70	shower	dishwasher	
75	toilet flushing	vacuum cleaner	
80	alarm clock	garbage disposal	
85	passing diesel truck	snow blower	
90	squeeze toy	lawn mower	arc welder
95	inside subway car	food processor	belt sander
100	motorcycle (riding)		handheld drill
105	sporting event		table saw
110	rock band		jackhammer
115	emergency vehicle siren		riveter
120	thunderclap		oxygen torch
125	balloon popping		

Source: <https://www.noisehelp.com/noise-level-chart.html>



HOW WE MEASURE SOUND

- a. The **sound level limit for the complainant's use** shall apply.
- b. Outdoor measurements shall be taken on or within the **real property line of the complainant**.
- c. **Indoor sound level measurements shall apply when the sound source is on or within the same parcel of land as the complainant** or when the real property line between the sound source and the complainant is a common wall, floor, or ceiling.
- d. Three (3) measurements of the normal, usual operation of the sound source under investigation shall be taken.
 - Three (3) measurements not less than thirty (30) seconds in duration.
 - All three (3) measurements shall be taken within any one-hour period.
 - If the sound source under investigation is of a total duration of less than ninety (90) seconds, one thirty-second measurement shall be sufficient.



AMPLIFIED SOUND LEVEL LIMITS
Special Entertainment Overlay District

Days	Hours	Decibels
Monday-Thursday	12 p.m. – 12 a.m.	85 dBA or 95 dBC
	12 a.m. – 2 a.m.	70 dBA or 80 dBC
	2 a.m. – 12 p.m.	65 dBA or 75 dBC
Friday – Sunday and legal holidays (as defined by state law)	12 p.m. – 1 a.m.	85 dBA or 95 dBC
	1 a.m. – 3 a.m.	70 dBA or 80 dBC
	3 a.m. – 12 p.m.	65 dBA or 75 dBC



TABLE 1

MAXIMUM PERMISSIBLE SOUND LEVEL LIMITS dBA

USE	TIMES	OUTDOOR	INDOOR
Residential	7:00 a.m. - 10:00 p.m.	60 dBA*	45 dBA
	10:00 p.m. to 7:00 a.m.	50 dBA	35 dBA
Commercial	24 hours	65 dBA	55 dBA
Industrial	24 hours	75 dBA	65 dBA

*If the residential use is within a commercial, industrial, or mixed use, or within two hundred (200) feet of such use, the *outdoor* sound level limit is sixty-five (65) dBA between 7:00 a.m. to 10:00 p.m.



AMPLIFIED SOUND LIMITS

Commercial, mixed-use, or industrial uses

- i. **12:00 p.m. to 10:00 p.m. daily: sound levels shall not exceed sixty (60) dBC**
- ii. **10:00 p.m. daily to 12:00 p.m. the following day: sound levels shall not exceed fifty-five (55) dBC**
- iii. Sound level limits in **Table 1** shall apply when sound level measurements are taken **outdoors at or within the property line of the complainant**

Activities/Factors Influencing Noise	Challenge
<u>Alcohol sales and consumption</u> Sunday – Thursday 7 a.m.-2 a.m. Friday & Saturday 7 a.m. – 3 a.m.	Hours of operation for businesses selling alcohol
<u>Special Entertainment District Conditions - 5-55</u> Business Tax License for Outdoor Entertainment	4 a.m. DJs Speaker placement Bass sound Outdoor crowd
<u>15-156 - Adult Entertainment</u> <u>Nightclubs 5-1</u>	Parties DJs Parking lot activity



SOUND COMPLAINT/ENFORCEMENT CHALLENGES

- Sensitivity to sound versus the allowed decibel limits
- Providing a real-time response to violations
- A lack of stationary equipment and technology for live monitoring of sound levels in “hot spots”
- Amplified noise
 - Bass sound
 - Speaker Placement
- Special entertainment overlay district abutting residential use
- Amplification of noise at venues with outdoor entertainment



POTENTIAL SOLUTIONS

- Hire a consultant for a noise study and review of Chapter 17 – Noise Control
- Amend the ordinance to address issues and recommendations of the consultant
- Implement technology to allow live monitoring of sound in “hot spots”



QUESTIONS?