

CITIZEN'S GUIDE TO

Noise Measurements, Noise Laws, and City Mandated Exemptions

Summary. This guide is meant to educate residents of the island on noise issues related to the proposal to replace the Amelia River Golf Club with private club driving track. This proposal has a number of noise related issues. There is no doubt that a driving track for exotic and street legal cars will be a noisy and troublesome affair for city residents, city management, and city code enforcement. Noise CAN NOT be measured, it is subjective. However, great efforts will be made to quantify sound. But no effort will reliably predict noise levels before an event, nor capture them indisputably during an event. Current city noise laws will prohibit the driving track if it can be heard in any manner beyond 200 yards.

THE ART AND SCIENCE

Sound is subjective. The ocean waves on a beach and a group of motorcycles on Sadler Road may both have the same decibel reading at a certain distance. One, however, is considered soothing by most, the other annoying.

Decibels (dBA) are measurements of sound intensity at a specific moment at a specific distance from a source. They do not account for duration or fluctuation nor for wind direction or air quality, all which can magnify noise effects.

Decibel reading are logarithmic. 70 dBA (annoying sound) compared with 60 dBA (conversation) is 2 times louder and 50 times more powerful in distance it travels. 80 dBA (street legal car) is 4 times louder and 100 times more powerful than 60dBA. Things get real loud real fast with even small changes in official readings

Vehicle dBA effects are additive not cumulative. Two cars do not double the dBA effect, but they each add 3 to 5 dBA to the total. Two cars each at 85 dBA have a sound of 88 to 90 dBA. If you have 10 cars in proximity, the effect is deafening.

Driving tracks have various noise abatement engineering devices. Banking curves, directional acoustical barriers, embankments, vegetation, billboards, and stadium construction all attempt to focus sound waves away from people or animals. Excepting for the monumental scale of a stadium, these engineering tools have little effect on noise abatement. If they did, there would be many more race tracks near neighborhoods. The only true way to make noise disappear is miles of distance..

There are numerous ways to measure and analyze decibels (dBA). It is more art than science. Litigation of track noises has experts referring to the same event (e.g. race track) but use different baselines and different source readings to come up with widely different results. The expert hired by a developer will have a different result than one hired by a home owner association.

The actual noise level of a track or road course will not be known until AFTER it is built. No engineer can promise a maximum noise limit beforehand, unless, of course, they use imaginative ways to measure the noises after the fact. The citizens of Palmer Massachusetts are sorely well aware of this fact.

THE LAW

Two Florida Statutes cover vehicle noise for vehicles on state roads, which in turn are considered "street legal" vehicles in the context of proposal as presented to date.

Title XXIX Public Health section 403.425 limits motorcycle built prior to 1973 to 86 dBA, and afterwards to 83 dBA.

Title XXIII Motor Vehicle Noise section 316.273 limits cars to prior to 1972 to 86 dBA and afterwards to 82 dBA.

The Airport itself has a limit of 85 dBA.

Most road tracks for high performance “street legal” vehicles must pass an 87 dBA limit before allowed on the track, and are monitored by a fixed sound receiver at some point on the track. Cumulative effects, however, are not measured. Racing blogs are full of discussions on how to “game” the system to allow greater noise, for thrill or perceived safety.

Section 42-140 (3) of the City Ordinances states that “*excessive noise threatens both the tourist industry and residents of the city by making it difficult or impossible for visitors and residents to enjoy places and activities, including shopping, cafes and other outdoor amenities, parks, and daily activities without being unreasonably disturbed by such noise.*” (boldening added)

Section 42-142 (13) states in part ...” *the operation of a motorized vehicle or motorcycle or combination of vehicles that create excessive or unreasonably loud noise for any unnecessary and unreasonable amount of time and which is **plainly audible at a distance of 200 feet** from the motorized vehicle, motorcycle” **are prohibited.*** (emphasis added)

Section 42-142 (14) states that the measurement technique for “plainly audible” is the enforcing Officer’s unassisted hearing.

The city law as currently written is problematical for a road course. By the criteria of Section 42-142, a road course is clearly prohibited since the nuisance factor is mere audibility. If you can hear it at 200 yards, it is illegal.

Even if the City noise law is modified, there remains the issue of **enforcement**. Code enforcement officers will need to be equipped and trained to a standard level of testing, after the methodology of that testing is agreed upon. Road event and individual use of the road course will need dedicated personnel to monitor, record, and enforce noise restrictions. Having these people employed by and reporting to the road course organization is fraught with all the issues associated with “self regulation”. A review of existing litigation of noise issues clearly shows that self regulation or any municipal regulation is largely ineffective.

While a developer may promise certain operational parameters for road course use and noise limits, and there may even be written rules for such, the reality is that **variances** will be requested and granted for a host of reasons. Night driving, motorcycle rallies, vintage car rallies, and such all will require a lifting of noise and hour restrictions. This is the real world. The City will need to be prepared for it, should it allow such an activity.

PAST EXPERIENCE

The City does not have to wait until a road course is built to determine if the noise pollution that comes with it is untenable for its location. In March 2016 and 2017, the Sportscar Vintage Racing Association (SVRC) hosted two road course style events at the airport. These vehicles were “street legal” vintage cars and motorcycles. (per City Resolution 2016-07 Exhibit A paragraph 4.12 and Section 5.01(a) of attachment thereto). The noise from the event was clearly audible and distracting by those outside at least three or four miles distant. Anecdotal evidence to the annoyance and vexation these events caused to city and county residents are abundant.

“The rich get the benefits and the rest get the problems”