

Potential ground vibration threat to the Triangle Wastewater Treatment Plant and surrounding area

From: Allen Botnick DC <ajbotnick@protonmail.com>

To: JGibson@dconc.gov <JGibson@dconc.gov>

BCC: sylbar@hotmail.com <sylbar@hotmail.com>

Date: Monday, June 28th, 2021 at 12:58 PM

Dear Mr. Gibson,

I am following up on an email I sent regarding the ground vibration that is damaging roofs at 300 Falls Pointe Lane, Durham, NC. Nails are pulling out, residents are hearing a humming sound and roofers have had to repair the beams. The source appears to be coming from the South and there is a lot of vibration acceleration amplitude at 3604 Louis Stephens Dr. Durham, NC which is a high security unmarked federal building that is registered to the Social Security Administration (SSA). I spoke to a structural engineer and he said the varying frequency of the vibrations and low frequency of the earlier set of readings are cause for alarm because they could damage the Triangle Wastewater Treatment Plant located about 600m to the West and he said triangulation needs to be done. The waves are causing maximum displacement South-North at the Falls Pointe Apartment Complex and they probably are causing a lot of East-West stress on the plant. The timing of the waves is also suspicious because during the weekdays they have high amplitude from 6pm to 5am which would be when there are no staff to monitor vibration warnings. The plant staff aren't returning calls and I'm not sure if you got an earlier email I sent last week about this because I didn't receive a reply. I emailed SSA but they didn't reply either but that caused the vibration to stop for one day . We need to investigate this ASAP because it is a threat to the water supply for the Raleigh Durham Triangle.

This is a graph from yesterday of the Falls Pointe Apartment complex readings and the site taken was at the end of the parking lot at a light post on a retaining wall at the end of the street so this rules out machinery causing it. You can see that the frequency is high but also varies. Red axis is North-South and that peak is maximal which suggests the location of the waves reaching 1-2m/s sq. Green is E-W. The peak from the ground retaining wall is much larger than from the 3rd floor apartment. I have taken a vibrational acceleration reading from the gate of the plant and it is comparable to the apartment reading so I am concerned that the plant is taking damage. The tenants at the FP complex also need to have this addressed because it is constant source of environmental noise irritation for them as the building shake is highest when the ground vibration is emitting strongly in the evening.

This accelerometer reading was taken from 300-400 Cascade Falls Lane parking lot edge from the concrete pillar base. Software used is Physics Toolbox by Vieyra Software version 2021.04.26.

5:38    

Jun 27, 2021 5:38:10 PM

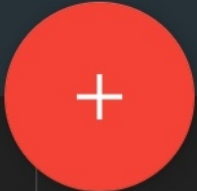


Linear
Accelerometer

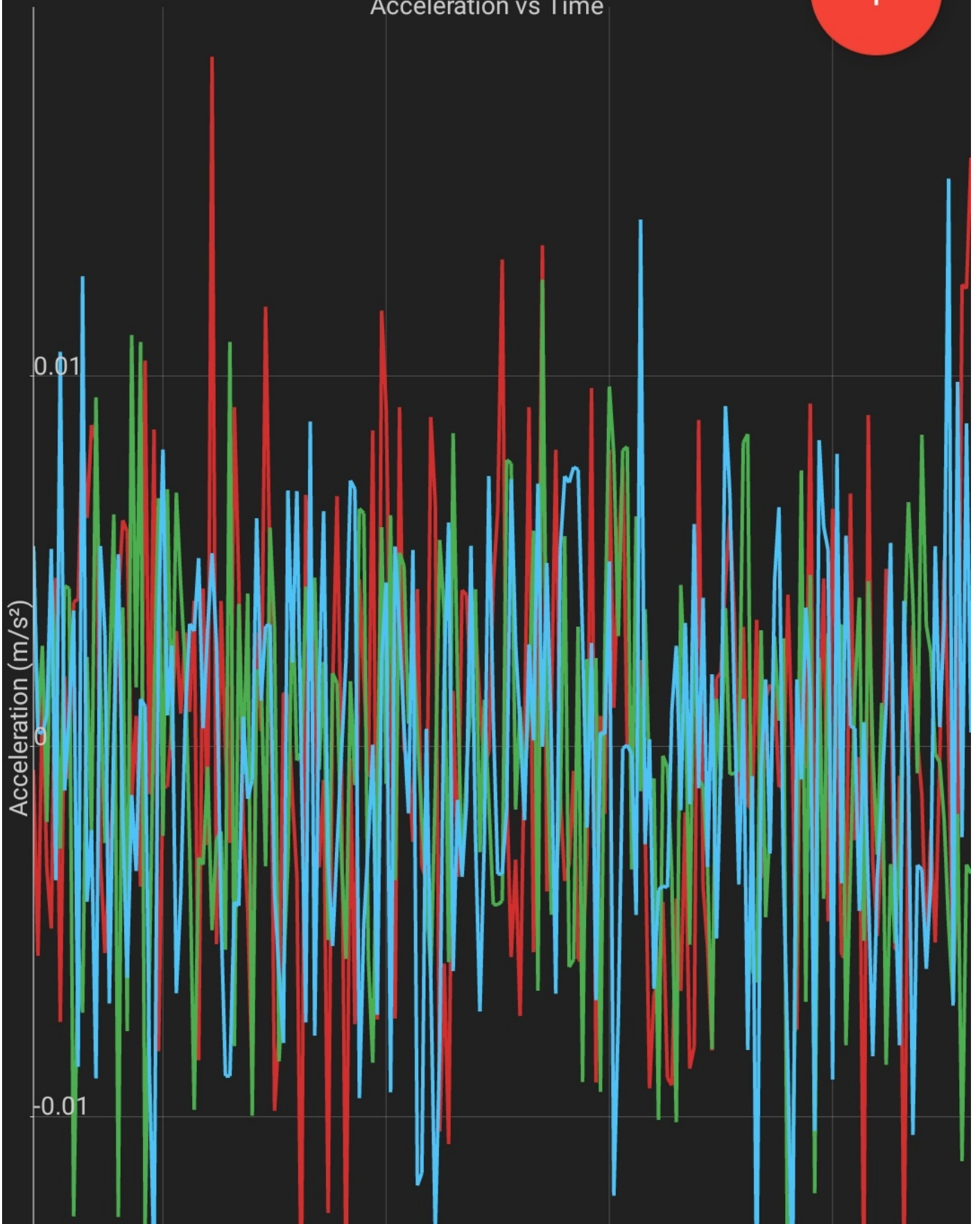


x: 0.021 y: -0.008 z: -0.005

Total acceleration = 0.023



Acceleration vs Time



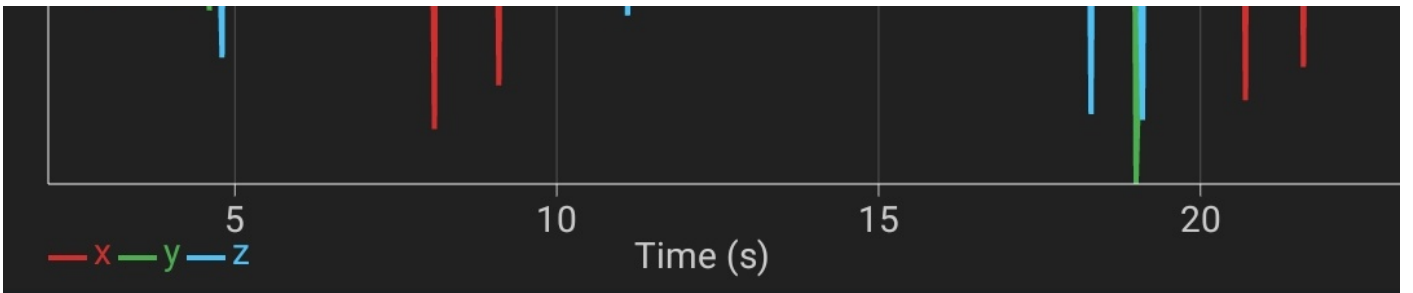


Chart Multi Vector

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Below is an aerial view with the sites labelled.

Please treat this as **urgent**.

Allen Botnick DC CNIM
Durham, NC USA

Sent with [ProtonMail](#) Secure Email.

----- Original Message -----

On Sunday, June 27th, 2021 at 4:03 PM, Allen Botnick DC <ajbotnick@protonmail.com> wrote:

Triangle Wastewater Treatment

5926 NC-55, Durham, NC 27713

Dear Sir/Madame,

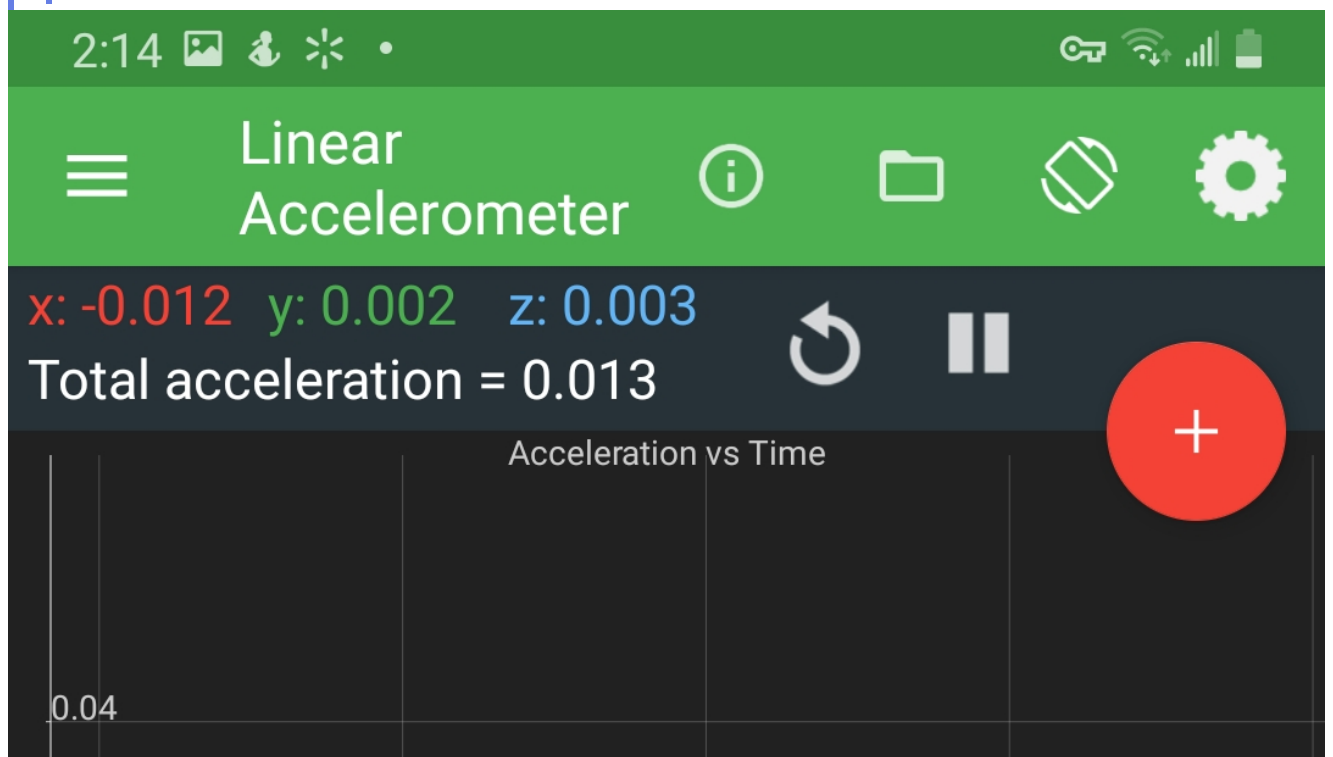
Independent ground monitoring around your premises has detected that between the hours of 6pm and 6am (and also 2pm to 4am more recently) your grounds are receiving ground vibrations measurable on accelerometer at 1-2m/s at frequencies that vary by day ranging from 6hz, 30hz, 90hz and 96hz. The apartment building I live in is also getting this ground vibration and it has caused swaying to the structure that damaged the roof. We are seeing nails pull out of the ceiling sheetrock and buildings shake due to resonance and swaying (see photos) which is apparent even during windless days. Tenants hear buzzing from it late at night. The waves appear to be emanating from an eastern point towards your facility. The nightly timing of the vibrations suggests that it may be intentional to damage your facility. They began in December of 2020 or earlier. I have alerted congress, apartment complex owners and community leaders (with a summary and evidence). Your staff told me that they are not monitoring ground vibrations so you should consult with an engineering expert and set up ground vibration monitoring to locate and address the source of the vibrations. Immediately check the integrity of your bolts for looseness, water tank integrity and any other structures for damage. I also submitted a complaint to the Durham County Engineering and Planning Department but have not heard back from them so I am copying them.

Ceiling nail heads pulling out



We will continue to monitor your grounds with spot inspections to protect the water supply from terrorist attack.

This is a photo from today 6/27/2021 at 2:14pm which shows a vibration at 96hz on an accelerometer. Red is North-South, Green is East-West, blue is vertical displacement.



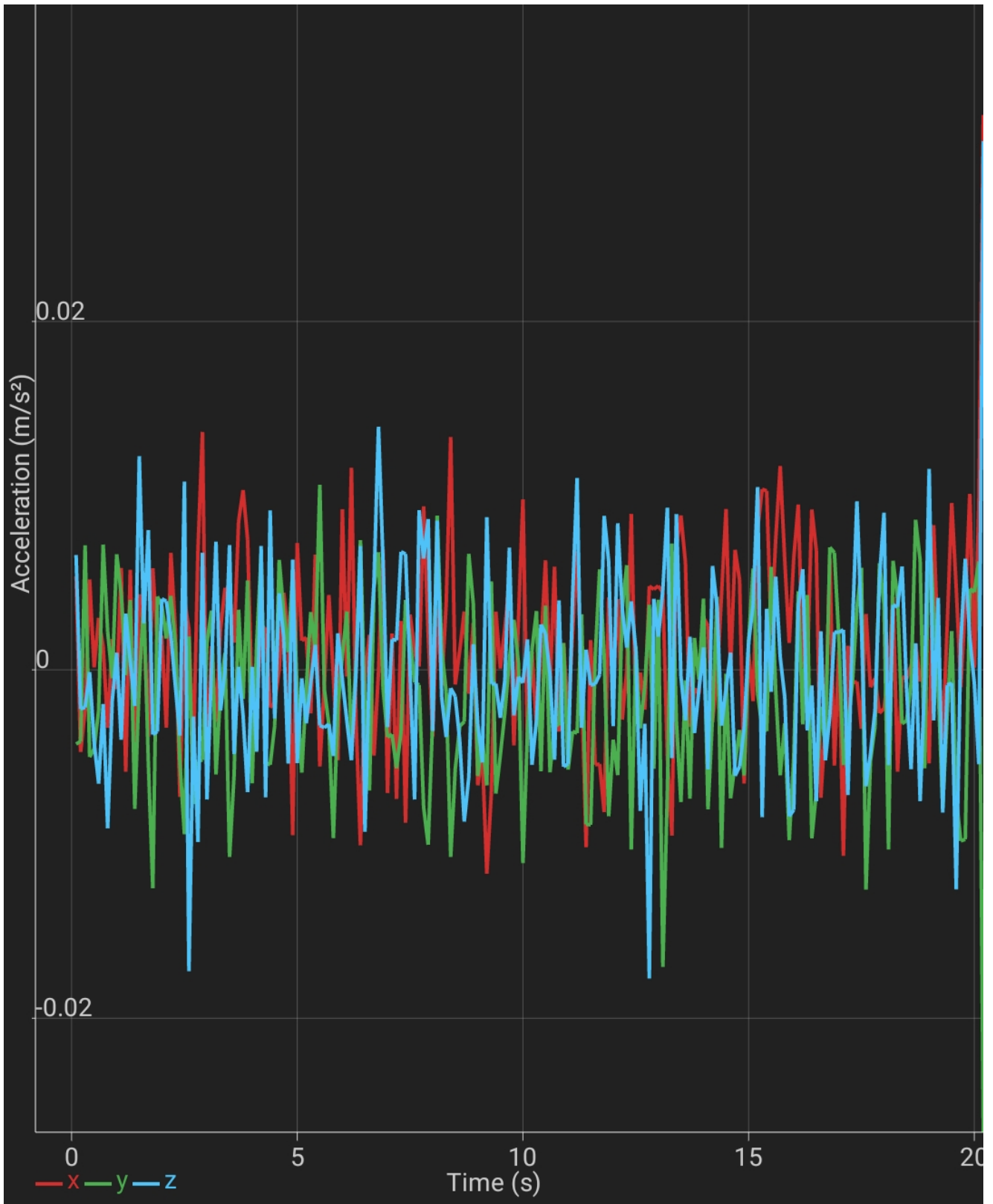


Chart Multi Vector

Sincerely Yours,
Allen Botnick DC CNIM
Durham, NC USA

Sent with [ProtonMail](#) Secure Email.

----- Original Message -----

On Thursday, June 24th, 2021 at 7:27 AM, Allen Botnick DC <ajbotnick@protonmail.com> wrote:

Jay Gibson

Dear Mr. Gibson,

The federal building located at 3604 Louis Stephens Dr. Durham, NC is emitting strong 6-30hz night vibrations through the ground to the Falls Pointe at the Park apartment complex 400m away at 300 Cascade Falls Lane (CFL) Building in Durham and at the Triangle Wastewater Treatment plant located 600m away at 5926 NC-55, Durham, NC between 6pm and 5am. During the day the vibrations are either weak or absent. This has been going on for about six months. So far the wooden apartment complex has taken structural and roof damage (which required repairs) from this and cause it to sway with wind. The vibrations travel up to my third floor apartment at #305 in the 300 CFL building and I am concerned could bring it down. They also interfere with my enjoyment of the apartment since they prevent me from sleeping.

I am concerned that the wastewater treatment plant could also be sustaining damage as a result of the vibrations that could result in problems for the community if leaks develop (flooding).

This is what the structures look like and their proximity.



Loading

I sent the listed owner, the Social Security Administration (SSA), an email about the problem but they have not responded. The building is odd because it has armed guards and barricades, is unnumbered and unmarked and is listed as a communications center. This level of high security is unusual for a SSA office.

6/20/2021

SSA

You are the listed owner of the building at 3604 Louis Stephens Dr., Durham, NC. This property is emitting measurable low frequency vibrations and noise pollution into the surrounding environment which is causing structural and roof damage to my apartment complex at 300 Cascade Falls Lane. It is also causing me to suffer stress and have sleep problems and is preventing me from quietly enjoying my residence. The problem started approximately 6 months ago and has the strongest vibrations late in the evening up until 4 am. You must immediately cease and desist from producing noxious vibrations from your facility or I will take further actions.

Allen Botnick. Durham, NC


The vibrations ceased for one day after I emailed the SSA but then restarted the following evening.


Myself, the other tenants and the owner of our building need it to stop emitting the harmful vibrations.


I am attaching accelerometer readings from my apartment in the evening at the time of strong vibrations, from the entry gate of the water treatment plant and from the edge of the federal building. They appear to confirm that the federal building is the source. Please let me know what you find.

Sincerely Yours,
Allen Botnick DC CNIM
300 Cascade Falls Lane #305
Durham, NC USA
phone 919-443-5070

21.17 MB  6  5

 vibration readings all.zip (3.34 MB)

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 Screenshot_20210624-032526_Physic... (1.14 MB)






 Screenshot_20210624-035134_Physic... (1.09 MB)


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 20210627_300 CFL SW Pole Site.jpg (4.47 MB)