

On Saturday, August 25, 2018 8:41 PM, Mark Dunning <[Mark.Dunning@cityofls.net](mailto:Mark.Dunning@cityofls.net)> wrote:

Patty,

In consulting with our staff regarding the blasting report data and trying to explain the technical aspects of blasting and how blasting is measured can be very difficult as there is no simple answer. As explained to me, the maximum safe peak velocity is a function of the frequency of the blast, i.e., there is no single answer to the question “what is the maximum peak velocity”? The US Bureau of Mines developed the graph below which is provided to staff when blasting is conducted along with other data. Looking at the information provided in this graph, it seems to be very simple to discern whether or not maximum thresholds have been exceeded. Within the graph below, if any of the data points (x’s) fall above the horizontal or angled line, they are beyond the allowable limits. If all of the data points are below these lines, they are within the allowable limits. I have reached out to Star Excavating to see if it is possible to provide these graphs publicly rather than the reports that are currently being provided as in my opinion, the graph below is much easier to quickly determine whether blasting activities are exceeding the regulatory maximum limits. I will let you know if I hear as to whether or not this can be accomplished. With the reports currently being provided, about the only way to determine whether blasting activities have exceeded any regulatory thresholds is to look at the right of the graph and look for the “OK” along each line. If the report indicates “OK” the regulatory maximum was not exceeded.

Hope this helps and as I understand each time blasting occurs, this information is provided to City staff and other regulatory agencies, so is being well documented.

Please let me know if you have additional questions we may be able to assist with.

Thank you –

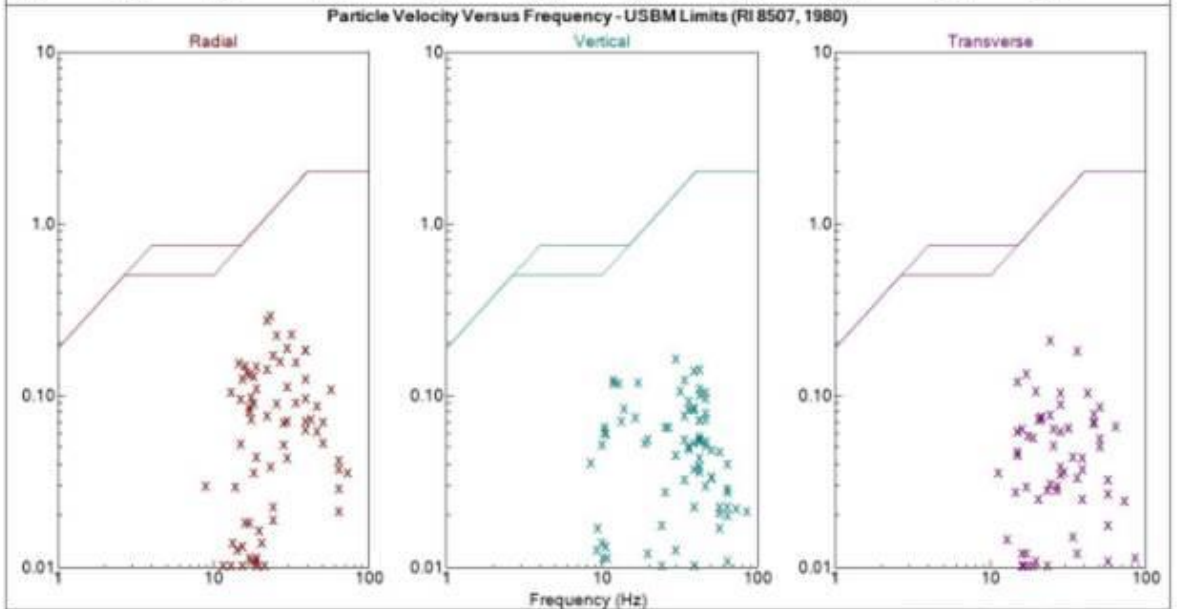
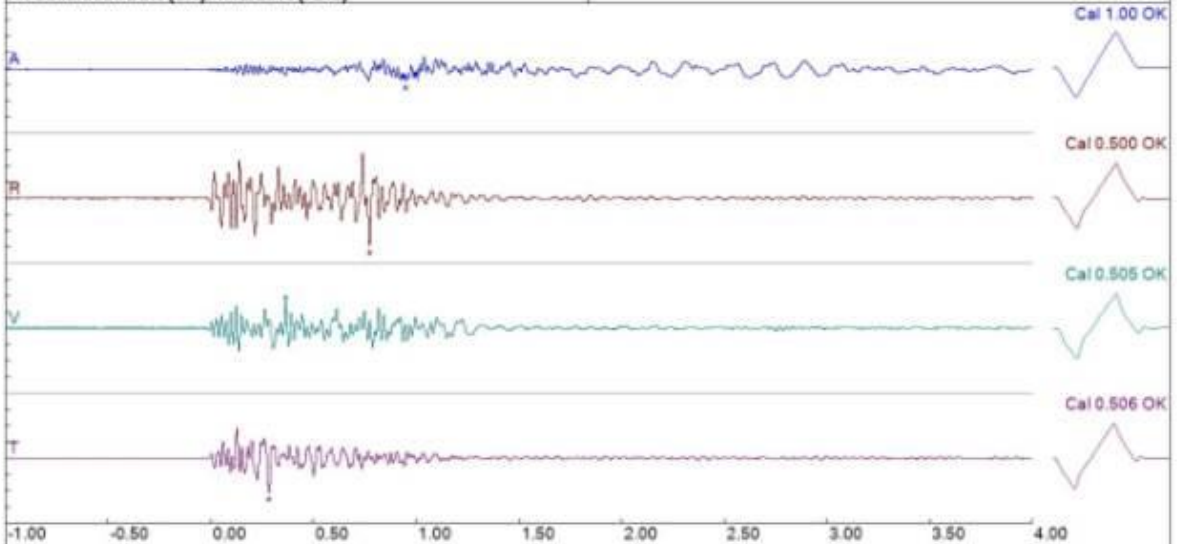


Star Excavation, LLC  
 2249 NW Quarry Park Road  
 Lee's Summit, MO 64081

Station #1  
 N 38 56.219, W 94 25.467

Number: 0016  
 Date: 8/21/2018  
 Time: 14:57  
 White Mini-Seis III SN: 7212  
 Seis. Trigger: 0.0500 in/sec  
 Air Trigger: 125.0  
 Sample Rate: 1024  
 Duration: 4.0 Seconds  
 Pre-Trigger: 1.00 Seconds  
 Voltage: 6.7

Peaks and Frequencies	Graph Information
PPV Maximum: 0.294 in/sec (0.7715 sec) Acoustic: 112 dBL @ 8.1 Hz (0.9463 sec) Radial: 0.294 in/sec @ 23.3 Hz (0.7715 sec) Vertical: 0.166 in/sec @ 30.1 Hz (0.3633 sec) Transverse: 0.211 in/sec @ 24.4 Hz (0.2822 sec) Seis Calibration Date (SN): 4/12/2018 (7212) Air Calibration Date (SN): 4/12/2018 (7212)	Duration: -1.000 s To: 4.000 s Acoustic Scale: 126 dBL Seismic Scale: 0.40 in/sec (0.100 in/sec/div) Time Intervals: 0.50 sec



**From:** Mark Dunning  
**Sent:** Thursday, August 23, 2018 7:45 AM  
**To:** 'Patty Denny'; Sam Mahlstadt  
**Cc:** Stephen Arbo; [dwh3tom6@sbcglobal.net](mailto:dwh3tom6@sbcglobal.net); Rick Poeschl; Jim Eden; Michael Anderson; Bill Baird; Craig Faith; Trish Carlyle  
**Subject:** RE: Follow-up to May 29th Bent Tree Bluffs informational meeting on land reclamation/blasting

Patty,

I have been informed that the blasts that took place on August 21<sup>st</sup> did not exceed regulatory thresholds. I am working with our folks who have much more familiarity with blasting and seismic readings/reports and intend on providing more details as to how to read and interpret the data so everyone has a better understanding of the information being provided and will try to clarify what the upper limit is for the blasting activities.

Thank you for providing these concerns and allowing us to review and respond.

**From:** Patty Denny [mailto:[pden3@att.net](mailto:pden3@att.net)]  
**Sent:** Tuesday, August 21, 2018 10:18 PM  
**To:** Mark Dunning; Sam Mahlstadt  
**Cc:** Stephen Arbo; [dwh3tom6@sbcglobal.net](mailto:dwh3tom6@sbcglobal.net); Rick Poeschl; Jim Eden; Michael Anderson; Bill Baird; Craig Faith; Trish Carlyle  
**Subject:** Re: Follow-up to May 29th Bent Tree Bluffs informational meeting on land reclamation/blasting

**\*\*\* This email is from an external source, use caution before clicking on links or opening attachments. \*\*\***

Mark,

After our May 29th meeting, you mentioned that you thought there was an upper limit for the vibrations from the blasts. Did you find out what that upper limit was? Today's blast was the most powerful yet. Many Bent Tree Bluffs homeowners felt it and commented how powerful it was. It not only rattled the homes, it rattled the residents, their children, and their pets.

Please review the statistics from today's blast and confirm it did not exceed government regulations. Also, please let me know what that limit is.

Thanks for your continued support on this important issue.

Patty Denny

BTB Treasurer

816-716-4172

On Thursday, August 9, 2018 8:46 AM, Mark Dunning <[Mark.Dunning@cityofils.net](mailto:Mark.Dunning@cityofils.net)> wrote:

Mr. Mahlstadt,

Special Use Permit provisions are within the City's Unified Development Ordinance (UDO) – which is the City's zoning regulations.

The general process to amend the UDO includes:

1. Proposed amendments developed (if amendments are proposed by member(s) of the public and not City initiated the proposal would need to be coordinated with City Staff before moving forward for consideration)
2. Proposed amendments considered by the Community and Economic Development Committee (CEDC) which is a 5 member committee comprised of 4 members of the City Council and one Planning Commission representative
3. The CEDC may either recommend the amendment move forward to the Planning Commission for a public hearing, may ask for further work and refinements be made to the proposed amendment(s) or may not support moving the amendment(s) forward.
4. If moved forward by the CEDC, a public hearing is held at the Planning Commission who makes recommendation(s) to the City Council
5. City Council holds a public hearing on the proposed UDO amendment(s)
6. If Council is approving of the proposed UDO amendment(s) an ordinance will be read a first and second time and upon the signing of the ordinance by the Mayor – the ordinance incorporating the amendment(s) would be approved and adopted.

Generally this is a 3 month process but could be longer if the CEDC, Planning Commission or City Council have concerns with the proposed amendments.

Please let me know if you have additional questions or if I can provide additional information in this regard.

Thank you -