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CITY OF

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**PORTLAND, OREGON**

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OFFICE OF NEIGHBORHOOD INVOLVEMENT

**CHARLIE HALES, MAYOR**

Amalia Alarcón de Morris, Bureau Director

**Noise Control Program**

1221 SW 4th Avenue, Room 110

Portland, Oregon 97204

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*Promoting a culture of civic engagement*

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## **Noise Review Board Meeting**

**10-8-14**

**Minutes**

**Present** – David Sweet, Melissa Stewart, Carol Gossett, Elki Lahav, Paul van Orden

**Absent:** Julie Greb

**Guest Panelists** – Scott Mills (Geo Design), Jason Butler-Brown (BDS), Phil Dobbs (Hoffman Construction), Rory Martindale (DeWitt Construction), Garth Ullakko (DeWitt Construction), Ty DeWitt (DeWitt Construction), Jim Brunkhorst (Pacific Foundations)

**Minutes** – Kathy Couch

**Meeting called to order 6:01 pm**

### **Discussion with panel regarding pile driving.**

Chair Sweet explains the background of the pile driving discussion. Due to the ongoing construction in the Pearl District, along with increased residences, the noise impacting neighbors has increased substantially. NRB is committed to look into pile driving to ascertain if there is anything the City can do to update the code regarding pile driving noise. Currently it is lumped in with the remainder of construction activity. In Title 18, the only way we limit construction noise is to limit the hours. (7 am to 6 pm Monday through Saturday, unless granted a variance to work outside the hours; either through the Noise Control office or the Noise Review Board). We are looking at whether pile driving as a source of noise should be regulated differently than other construction noise

This is the beginning of the inquiry process, and we have asked experts in the field to come tonight to inform us of conditions, etc.

**Scott Mills**, Geotechnical Engineer for over 30 years, speaks first. His company did the design of the foundations on many of the buildings in the Pearl. Although quieter types of foundations work in various places throughout the City, there are some areas where only driven piles provide the assurance, practicality and safety that the geotechnical engineer and structural engineer really needs. It is important to consider that limitation of pile type or foundation type resides in the hands of the geotechnical engineer of record, and that responsibility is provided by the building code, the geotechnical engineer is responsible to provide a pile that is safe for the public. If you take driven piles off the table, you are limiting us to piles that may be unsafe.

In response to a question from Melissa Stewart with regard to soil contamination being the main driver for driven pile: Contaminated soil is not necessarily the only reason to look at driven piles. For instance, a tall building would require a

deep foundation in many areas of downtown Portland. It would depend on the substrate. We typically have soft, recent sediment (gravel formations, silt and fill) over hard gravel bedrock (Troutdale Formation). When the soft sediment is 85 to 90 feet over the Troutdale Formation, it's really difficult to install with a quiet drilled shaft. It has a difficult time getting down that deep. Another aspect is when you have highly variable subsurface levels above Troutdale Formation; with driven piles you get immediate feedback, which lets you know exactly when you hit it. With drilled shafts it's more a feeling than anything. The deep bedrock combined with variable strata levels sometimes make driven pile the best option.

Soil in much of the Pearl consists of highly irregular and recent alluvium (Missoula Flood deposits, gravels, silts, a lot of fill). Below that is a very dense gravel formation. In some areas in NW Portland, the dense gravel is close to the surface and you can easily support the buildings on shafts, but other areas, where the Troutdale Formation is tipping off, very shallow on one side and very deep on the other side – that would be a situation that you would want to support the building on driven piling.

The decision needs to be made by geotechnical engineer, who can look at the building, how heavy it is, and the soil conditions (engineers drill holes on site and that's where we get the information as to the soil conditions and the safest pilings to use before making a determination.) We sometimes give recommendations for multiple types of foundations, and then the decision is left up to the structural engineer or owner, typically looking at the cost of alternatives.

**Jason Butler-Brown** – Geotechnical Engineer with the City of Portland, Bureau of Development Services

Bureau of Development Services and Site Development review building applications for compliance with City & State building code. State Building Code is the code that describes the requirements for deep foundations. It allows the installation of driven foundations, as well as drilled foundations. It outlines the specific design requirements associated with each method. The Building Code doesn't regulate noise or vibration associated with construction. That said, to echo Scott's comments, The Pearl District is an interesting part of town. There are recent alluvial deposits over lenses of sands & gravels with more silt below that, and the Troutdale Formation. Above that, the top 20 to 25 feet we have manmade fill soils, which consists of anything that folks could get their hands on to fill the ditches and the drainages to put their buildings on. So, if one is trying to build a shallow foundation design, that soil is not suitable for foundation support. In several of the Downtown buildings we have deep parking garages that are very expensive to construct, you have to deal with groundwater management issues. The deeper the parking garage, the higher the expense is for managing groundwater but you can move to more of a mat foundation, which consists of pouring a big slab of concrete. Sometimes the building loads are too heavy for that and you have to go to a deep foundation system. One of the advantages you have with a driven system is that you get feedback as you drive the piles into the ground. You can see how much displacement, you count blows vs. time, and record that, see how much energy is going in there. – A drilled shaft, which includes several types. Most recently we've been seeing continued flight auger piles that advance auger into the ground so you rely on the feedback from the drill rig, measured torque, and try to derive an understanding of what the soils are that you're drilling through.– measuring drills to see. Some methods allow for an open hole or a cased hull, and you run into issues when you have groundwater because groundwater starts to flow into the hole and heave the soils, and then you have a situation where you need a drilling slurry or similar fluid to counterbalance those forces. There are many advantages and disadvantages to each foundation system, and that's what Scott was getting to, was being able to record as you're driving, resistance as you're going through versus relying more on your understanding of the subsurface conditions.

David Sweet asks if the Noise Review Board were to propose to Council any code change, does it matter to Bureau of Development Services? Assuming we don't propose anything that violates the State Building Code, are there concerns about limiting hours etc?

Jason responds that BDS is not here to advocate for any particular system, we do want to advocate extreme caution if board is considering any limits to the engineering solutions for building construction. There are definitely times where the driven pile foundation system is a cost-effective and rational alternative, especially when looking at contaminated soils or soils with organic materials, such as wood waste that you would find at old mill sites. If the recommendation to

Council is to limit hours, then he doesn't see any issues with BDS. Rather than limiting an engineering solution, they are trying to mitigate the unpleasantness of it

David Sweet asks both engineers if they are aware of any techniques that are quieter, yet still able to drive piles into the soil. Scott says you can vibrate a pile in but would still have to beat on it with a percussion hammer at the end to get feedback. Jason agrees with this.

**Jim Brunkhouse** with Pacific Foundation

We've done some work in the Pearl and have used more drilling solutions. We just finished a project and did more of a drilled approach to that. Each method has its own limitations, and each method has its own application. There's also new technology that's come a long way too, and that's the approach we've taken. Carol Gossett asks why they've chosen drilling and how tall are the buildings? Are they comparable to other buildings being built in the Pearl? Jim responds that drilling is just a market they got into, and as far as stories of buildings- Block 15 will be 27 stories. Unico will be 30 stories. Abigail is 8 stories. Carol asks how deep they had to drill. He responds that Block 15 went deep due to the geology change due to variability over there. They had some drilled shafts that went to 116 - 117 feet. Averages are in the 70 – 90 foot range. There are some limitations. 120 feet gets to the far end of the CFA that's been done around here. We went deeper than what was expected on that project. Pile driving or drilled shafts would have gone longer because of what the forecast of what the ground was around there. 90 feet would be practical solution. Melissa Stewarts asks him to describe the monitoring they are able to do with the new technology. He replies that it's not a refusal where you're counting blow counts, which has been the method used on pile driving, which works and there's a comfort level with that. The bearing capacity with the drills is exactly like what was said. We measure torque and we measure our advancement rate from our rigs, which are equipped with sensors. That's sent back to an instrument cluster in the cab that the operator is reading and feeding, and then we monitor the concrete that comes into it. Carol asks if the drilling requires any special staging area, and does it affect the cost and size of staging areas? How do you deal with the soil that's coming out?

He tells her that it is a displacement style foundation and there's material that comes out of there— We used the continuous flight auger on Block 15. That material that came up was pulled away with the excavation and segregated with the balance of the impacted soil that was on the site. It was taken away and managed like they do with the rest of the impacted soil.

David asks for clarification between the types so that the board understands. Jime replies that with a drilled foundation you drill a hole and pour grout to set a pile, and the ultimate element that is left in the ground is going to carry the load from the building all the way through the soil down to this Troutdale Formation that's at the bottom. Block 15 is a concrete with rebar steel that's in the middle, so you have a concrete column that's left there.

Scott responds – his firm was the geotechnical engineers on that site. What happens when you get beyond 85 feet – the rig has to stop and shut-down. They have to hoist a man up high and put another length of auger in there to advance further, and that's okay. That obviously slows things down, but if you pull out (and this is why 85 to 90 feet is the magic number), you also have to stop where you're grouting over and disconnect that continuous flight auger, pull it out and reattach. During that time, you have grout that's not under pressure – if that grout sinks below a certain point, holes in the shaft beyond the tip of the auger coming out of the ground you get void in the shaft. The geotechnical engineer ultimately takes responsibility for the quality of the foundation. We have to sign off on it. Speaking from that particular project, I will never sign off on a continuous flight auger with shafts longer 80 to 90 feet until there's different equipment in the town that can go deeper than that. It's just too much— you lose sleep at night thinking about the possibility that these aren't done properly. I believe that all of them were done properly because we went through and tested all of them and sent a sonic wave down each one of them and determined which shafts were consistent all the way up from bottom to top. We did find 2 or 3 shafts did have silt inclusions in them that had to be replaced. Silt inclusions at the depth where they changed out the auger. We set up a procedure after that that prevented that from happening. Bottom line is we have to have an effective foundation we can rely on. Yes, you can get down to 120 feet. We did it at that site and I know that those shafts are good but it took a lot of effort and probably a lot of lost sleep to make sure those shafts were good and fully supported. The decision of whether you go with shafts or driven piles (and they are both great foundations when they're applied to the right situation) has to remain with the geotechnical

engineer because ultimately I'm the one who signs on the dotted line and I'm the one who gets sued if there's a problem and I lose my company, so anything that restricts the use of driven piles when they are appropriate for certain situations is just something I don't think should be considered.

David asks if there is a reliable way to determine in advance how deep you have to go. In the case of Block 15, you were surprised?

Block 15 was no surprise to Scott. There's actually a different technique that was considered for that site, called a Down Hole Hammer. It didn't work the way that we'd hoped it would. We ended up having to switch over to a continuous flight auger. There were 3 zones. We separated the depth to the very dense gravel Troutdale Formation – deepest one was 120 feet. One end was up near 50 feet. Average depth of what we went on that site was just a few feet from what we predicted. We did a good job predicting, it's just that what tools we had to replace the initial alternative aren't perfect for those very deep foundations. I wouldn't have gone into that project with no alternative.

Elki asked if they used a sonic signal to determine how deep it is. Scott tells him that they drilled holes to determine how deep, and then used a sonic sensor with a little sensor on top of the shaft which sends a sound wave down through the shaft. If there's an inclusion of dirt or anything in that shaft, between the top of the shaft and the tip we get an early return of that sound wave and it maps out exactly where it is. And we can determine if shaft has problems or is intact.

### **Rory Martindale** DeWitt Construction

PowerPoint

History

Pile driving originated in Egypt 5000 years ago. Basic method hasn't changed.

Types of piling – driven grout, driven pipe pile, vibration driven pile, auger cast

Driven grout, though noisy, offers lower exposure for workers as far as contaminated soil.

Auger cast piles – larger cost and time, less availability for information on calculating impact of capacities, uses up to one third more material to fill the voids as the auger is coming back up.

In typical Downtown Portland excavations of previously occupied sites, If a layer is contaminated it must be set aside and sent to a landfill. The carbon footprint of trucks coming in and out, as well as driving to landfill must be considered.

Driven pile displaces the soil to the side, so the need to take it out is eliminated. The driven shaft remains small and more efficient, and can potentially carry more weight and is typically faster so the duration is shorter. Availability to information comes quickly. It's in DeWitt's best interest to stay ahead of the curve when it comes to working when it comes to working in high density areas.

They realize that noise affects different people in different ways. They strive to mitigate nuisance noise when possible by eliminating unnecessary testing and equipment. They are working to minimize impacts to the community and the environment.

### **Garth Ullakko** - DeWitt

DeWitt does both driven piles and augers. They have done 40 jobs over the past year, just over half were driven and the rest were continuous flight auger, which have been used in Portland area since 1979. They are not against drilling but some sites are more suited for driven pile because of contaminated soils. At The Parker, they did ground improvement but had to use driven piles in the northern half because ground improvement couldn't get deep enough. The reason they had to drive pipe there was due to contaminated soils. Other projects near NW Lovejoy also had contaminated soil, so they needed to use driven pipe. They are working on noise control issues and are doing testing on a job at Swan Island to see how much noise the hammer puts out. It's a different type of hammer than what was used in the Pearl. When they start using that type of pile they'll be testing that too. They are working on a design to muffle sound, and are hoping to get to 90 dBA at 50 feet. It will take a lot of engineering to make sure it can meet the need.

Garth has done internet research and hasn't seen anything that muffles noise at the source (from the hammer). There are a lot of ways to put piles into ground but not many of them work in Portland. DeWitt is working on something that can muffle the noise at the hammer. It isn't just for Portland that they are working on, there is some feedback from Seattle where noise is an issue. Recently, there was a job in Longview in specs. that required they muffle the hammer, although the engineers didn't have an answer as to how to do this. They recognize that noise impacts and problems are not just in Portland, but will happen everywhere. They want to get in front of it. They want to come up with something so they can continue to drive in Portland. This takes a lot of research and development so it might take a couple of tries to get it right. Carol asks if they need to comply with OSHA regulations when experimenting with muffled sound. Garth tells her that the safety of their workers is their number 1 concern even more than noise. They need to come up with something they feel safe with. They want to respond to the community and they want to lead the industry. David asks about Longview project. Garth replies that the city included in its specs that noise could be no more than 92 dBA at 50 feet (On Lake Sacajawea, where there is a lake, park, and residences). DeWitt made a bid but did not get the job. One of the challenges here in Portland is that noise is bouncing from building to building, creating reflective sound. On the internet, there was only information about a sound wall. In Portland, or downtown Seattle, it isn't feasible to build a wall 120 feet high so it won't bounce the sound between tall buildings.

### **Phil Dobbin-** Hoffman Construction

Phil has much experience with downtown jobs along with challenging jobs at OHSU and Legacy Emanuel. He says he has been listening to the conversation and can contribute from his experience with working for Hoffman. Hoffman has had contracts working for the different types of drilling. Currently, he is working on the Daimler Project at Swan Island. The different techniques all come with noise, all come with pros and cons. He agrees with what the geotechnical engineers have stated. The decision to go with a certain pile type is best left to geotechnical engineers. Sometimes a group decision, which would include the developer, owner, contractor and geotech, happens as well. On some jobs it's already prescribed –at OHSU, for example, it includes medical research, along with every type of medical issue you can imagine. They are worried about noise, vibration, pollution and exhaust; public exposure issues as well as worker exposure. Legacy Emanuel was right next to the emergency room, ICU and children's ward. Hoffman takes due diligence in these projects. They take sound readings, talk to 3<sup>rd</sup> parties, give residents notices, and live within the timeframes given as to when they can or cannot drill. At their Daimler project, there is a daycare right next to the job for children of Daimler employees. Phil monitored the sound beforehand, through a 3<sup>rd</sup> party test, to assure that sound doesn't affect the children, as well as Daimler workers and the construction workers doing the job. All in all, there are lots of things to account for. Things they've done in the past to mitigate noise impacts include, at OHSU for example, baffles in the windows of adjacent buildings. Sound travels and needs some type of mass to absorb, or it will bounce from one building to the next, back and forth. Phil was Superintendent for the Apple Store project downtown recently. In that case, the owner paid for a sound wall. The wall was actually put up for privacy, because that is Apple's MO. It comes with a huge liability for adjacent streets and the public, if winds come up. It's impossible to shield a 165 foot pile driver because it's not safe. They have to drag the pile up and lock it into the machine and lock it into position, plumb it up and start pounding it in. They have to physically see what they're doing and have to keep the shield away from the equipment to actually be safe. Technology hasn't come up with a truly workable shield yet. With today's equipment, it's very hard to muffle sound. As far as work hour limitations go, If you limit work hours, you have to keep in mind that hours are already restricted due to other code issues (PBOT, etc.) and there are finance windows, so there is tremendous pressure to get the job done as quickly as possible. The pile driving companies work with the contractor and all of the code limitations to get the work done. Every owner wants everything faster, cheaper, and quicker. It all comes down to the construction companies to accommodate this. Shortening the window to get the project done has exponential ramifications. Companies like Apple and Daimler hire many employees who are expecting to begin their employment, other peripherals lined up to go, there is a huge effect overall to running over the agreed up on timeframe. Melissa asks if he feels that the current way of doing things the best it can be. He replies that there is always room for improvement. For effective noise control, there needs to be a way to muffle the sound at the direct source. He is not

sure what that is, however. Carol wants to know in today's world, given the density of Portland in some places, if it's possible to muffle enough for neighbors. How much can it be muffled?

Melissa asks how long pile driving generally takes, and Phil tells her that at the Daimler project, they are driving 330 piles in 50 working days to go from 100 to 130 feet in the ground. Pile driving time period is to begin at 7:30am, then quit between 12:00 -1:00 pm. They are done between 3:30 and 4:00pm.

Paul asks the panel if other cities doing anything innovative. He asks that if they see a city with some innovative solutions, please call the Noise Office, or if they know of any currently, let us know what they are doing.

He is specifically interested in what Seattle is doing— they seem to have very similar issues that we do, whereas New York has a whole different set of dynamics, so it's hard to compare what they might require, compared with what Portland might require. He asks if there are any similarities between the cities, and is also interested in what some of the differences are.

Scott informs us that Seattle doesn't actually have similar soil conditions to Portland. Seattle has a mile of ice sitting on soil for several million years and we have stuff that's been deposited over several thousand years. They've done a number of projects in Seattle in the last several years and they just don't like pile driving in the downtown area, but they don't necessarily need it either, in a lot of cases. The area where the sports stadium is located has a little different type of softer soil. Los Angeles doesn't do a lot of pile driving down there, but those soils are all sand and denser stuff. They do a lot of shafts down there. It makes a lot of sense because their shafts encounter density from surface to bottom. In Portland soil, you won't find density until you get to the Troutdale Formation down below. Some cities might say that they don't like to do pile driving but they don't really need to, just because of the geology.

Paul describes the difficulty Noise staff have been having in getting any answers from other cities to even ask about regulations. He says that it struck him that if another city can't even get an answer, then what about citizens with concerns? A number of cities have told noise staff that people just call the police. Pile driving is the same as any other noise. It's clear, though, that both Portland and Seattle are trying to deal with this. Portland might be one of the first cities exploring it in depth.

One issue that keeps coming up in conversations with citizens is the use of barriers and Paul is trying to get more information on this. New York City requires barriers. The only thing that Paul can fathom is they must have a requirement at ground level for barriers.

He asks if there are any scenarios in Portland where a barrier might help. He says that from what he sees here, the hammers are up so high that a barrier will do nothing to help. The only thing anyone on the panel can think of that deep is the Fox Tower, which is 6 stories deep. It's so deep though, it's on a mat sitting directly on the Troutdale Formation, with the exception of one corner that did require driving sheet pile. (it was extremely loud)

Paul asks why some areas with pronounced construction don't require pile driving. Scott replies that different areas have different strata do deal with. In North and Northeast Portland, the soil is not as soft. As you get further from the river, the good stuff is 50 – 60 feet below the surface, and it's pretty flat, too, so you can see exactly what you're doing. In the Lloyd District, for example, current construction is being built on spreads, and they are good size buildings. It is dense sand, so it's pretty good stuff there. The closer one gets to the Willamette, the softer the soil. Both the Pearl & South Waterfront have similar soft soil with gravel down deep, so in many cases, driven piles work better. Both of those parts of town are very difficult to work with. Some buildings in South Waterfront are on piles and some are on 5 to 8 foot diameter shafts.

David asks Jim from Pacific what the auger noise levels generally are on projects, and is told that there have been no dBA readings taken, the noise just blends in with the balance of construction activity.

David invites the members of the public to ask any questions of the panel before they leave, and requests that comments for the board be left after the panel leaves.

**Patrice Hansen** – Sitka resident. She offers appreciation that DeWitt is looking at ways to muffle the sound. She shares that Mary Helen Kinkaid introduced her to Kenya Williams, who works with sound, has a PHD and has traveled in Europe

extensively. Mr. Williams says there are some things they do in Europe that have been amazingly effective in reducing sound that he would like to introduce here. She suggests that DeWitt speak with him, and offers to make an introduction and is offered a business card from DeWitt.

**Mary Sipe** - Sitka resident—she owned her own business and had a geologist that worked with her. She drilled 5000 foot wells. Has had experience with well drilling. The sound of pile drivers is very familiar to her, being out on oil rigs shares that she has extensive experience with pile drivers, having experience as an oil and gas exploration developer in Texas during the 80s. She's lived in the Pearl for 14 years and has listened to the majority of the buildings going up. She was led to believe the noise was just part of development, but then she began to see what was happening to her neighbors. She then began educating herself about pile driving so she understands a lot about this conversation between the developers and the contractors. She reported that several residents, including her, took it upon themselves to go directly to the developers and to ask them what they could do to mitigate pile driving noise for the other projects in the works, and that all developers then switched to the auger cast method

She remarked that it seems that the industry is changing somewhat and moving toward the use of this type of technology when it is appropriate. She clarified that the residents are not asking for anything that would be inappropriate in relationship to the safety of the people working, occupying the building, or anything like that. She wanted to be sure to communicate the emotional repercussions of having to listen to non-stop pile driving 6 days a week during the time it was going on.

She feels strongly that it doesn't matter what the noise ordinance is, if variances allow sweeping deviations from the construction restrictions. David Sweet reminds her that he is asking for questions for the panel, he would like to do those first before she presents testimony to the board.

She asked for clarification on the level of contamination around the soil on the Block 17 site. She visited the DEQ website and found that there was remediation done on Block 17 and according to her understanding of the DEQ information, their depths are not at dangerous levels. She asked Jim from Pacific if they have been trucking contaminated soils on Block 15. He says it's picked up, hauled off to an adjacent site and hauled away. Scott then answered further and explained that his company did the environmental investigation on all of the sites in the Pearl under question. On Block 15, the building can cap the contamination, because there is no basement. DEQ has already established that closure of that site can occur by capping it, and capping it is basically putting a building over it. In 15 and 17, you'll find pockets that are going to have to be hauled to Arlington at about \$400-\$500 a cubic yard. Ms. Sipe asked if it's more a cost issue, rather than the soil, and Scott explains that there is also a liability issue from driving highly contaminated material all the way down the gorge in dump trucks.

She asked Garth from DeWitt if there was another project in the Pearl that will use impact hammers. He does not know. He clarified that they are not the company that decides what method to use, but merely do what they have been hired and directed to do. He does know there are pockets of contaminated soil throughout the Pearl.

She asked if they ever use a combination of auger and driven pipe. Garth states that they have done that. A lot of it goes back to the cost to the owner and what they want to do.

She asked Scott his opinion on the need for the remainder of the Pearl as far as type of foundation support, specifically wondering if auger is a viable alternative for most of that property. He says most will likely be continuous flight auger but there will be some that he won't feel comfortable with, especially after Block 15.

Scott says he is the one who came up with the idea for auger for the Unico project. Originally, it was to be a mat. Scott felt uncomfortable because of what he was seeing and said they needed to put the building on shafts or some other deep foundation.

David Sweet dismissed the panel with thanks.

**Patrice Hanson** – Thanked everyone for their work on this issue. She mentioned speaking with one of the construction crew members recently, who told her that the constant pile driving noise was not something they were looking forward to working through for the next year, and were very relieved to know that other methods were being utilized. David

asked what her experience with auger and she told him it was much quieter and blends in with the rest of the construction noise.

David asked Mary Sipe about the concerns she had regarding a variance that was not part of the NRB process. She affirmed that she did have concerns. He told her that Paul had briefed him on it. His understanding is that it was for a few limited activities that tend to take place on a major construction site, and for a variety of reasons, need to be done outside of regular construction hours. It's been typical in the past for the Noise Control office to handle these types of variances and not bring them before the board. He said that he understands that the variance is being appealed.

Paul then described outreach with neighborhoods regarding the process for appeal.

The Noise Office was hearing that people had concerns that their voices were not being heard regarding the impacts of noise in the Pearl. They feel that, with the Pearl being a vibrant part of Portland, there is a large amount of construction noise, and they also feel that, as Portland Parks & Recreation pushes more events to the Fields Park, the Noise Office should be limiting noise more at these events. Paul stated that the Noise Office tried diligently to reach out to the community and clarify the appeal process and answer questions as best as we could. He believes we did a good job.

Paul then clarified that David Vanadia is the appellant. He was surprised that only David appealed it. He sat down with David for 2 hours to explain the process and make sure the Noise Office was empowering citizens to appeal decisions. This will also give us an opportunity to do outreach meetings this winter, where we will go out to several neighborhoods to explain the variance process. Appeals of variances go to City Council, not the Noise Review Board.

She says that the appeal process is clear now.

At that point, there was a conversation involving Melissa, David and Paul regarding staggering construction schedules. Although everyone recognized the hardship on neighbors within dense areas of Portland when there is construction virtually everywhere at once, a person has certain rights of property development. No one in BDS or anywhere else in the City has the authority to dictate how many projects can go on at one time. Melissa understands, but believes there should be some vehicle that people can take to address it. Part of the problem is that it's incessant and they never get relief. David says that Melissa's point is a good one and he isn't sure how it can be addressed given the tradition of property rights within this country.

Melissa feels strongly that there should be some avenue of limiting times for impact of construction noise. David suggests we ask the city attorney to look into the legality of staging work and what authority would handle this.

Paul explains the process for issuing variances for the citizens at the meeting.

He feels there is a misunderstanding as to the nuances of variance permits. If a person were to read through a variance, it won't have a ton of specific conditions, as if it were written by an attorney, but every variance includes two items, as checks and balances. One is that we can change the conditions and your variance can be denied, as we did with Fred Meyers in NW Portland. We've changed lots of variance conditions over the years, so he feels that part is a great success. The other condition that's not going very well is that if a police officer should show up, his or her directions will take precedence over any part of the variance, include shutting everything down. As far as forty five day Neighborhood Association notification to take public comment, he feels it is not realistic to believe that the Noise office can get to a point where that will happen, given the large volume of last minute variance applications, whether from a construction variance for last-minute work, block parties that people are putting together in a few weeks, or other unexpected "bumps". As an example, Komen Race for the Cure didn't get a variance in until the last minute this year. It would not have benefitted the community or the cause to have denied this variance application because of a lack of time to comment. However, if people realize there are checks and balances that we have now, we not need to get to a forty five day notification. If we have potential problems, we naturally expand notification. When the recent Pabst Project came before the NRB, we knew there would be strong opinions, so we made sure to expand where the notification area was. In the Pearl, we been trying to reach out to neighbors that are concerned, and doing a ton more notifications may not elicit more neighbors necessarily, so he doesn't know that just doing notifications is the answer. Engaging neighbors

who are impacted seems to be a more useful strategy. This also would seem to be a more successful approach than having information have to funnel through the Neighborhood Association. Generally speaking, the volunteers there are already busy with a myriad of other duties, and adding notifications of the more than 550 variances that come through the Noise Office and expecting comments from them seems as if it would be less than helpful. They are likely not going to want to weigh in on every variance issued. David, as Land Use Chair of his Neighborhood Association agrees strongly. He also reaffirmed his trust our Noise Control Officer of 18 years. He assured the guests that he is very sensitive to neighborhood concerns. He believes it's a good idea to go out to the neighborhoods because if that trust is fraying, we need to rebuild it.

He reiterates that If a person is aggrieved at any decision either the Noise Control Officer or the Noise Review Board, you do have recourse to the City Council.

The appeal is October 30 at 2:00 pm. Citizens who didn't appeal will still get a chance to testify. The appellant will have 10 minutes to testify.

One of the citizens asks about Anderson as the General Contractor on 3 separate sites currently being built, and asks for clarification as to the different various requests among them. Paul explains that he tries to balance out not everyone doing variance work simultaneously, so the first person through the door will have much greater leeway with their variance and the next sites will be more limited if we see that there's a notable impact on the community. Historically, concrete pours are loud, but not egregiously so. Most calls that the Noise Office receives on concrete pours are because of noise from back up beepers. This is not allowed during certain hours, and it's always a part of the conditions of the variance.

The citizens thank Paul for his work, there is a very brief discussion about the date of the next board meeting, and then all of the guests leave.

#### **Report on Hempstalk**

This was a modest event, with a small sound system. The Noise Office has not received one complaint. Attendance numbers were unknown.

#### **Report on Pabst Project**

Paul said that he had never seen such a high quality sound system with the capacity to control the sound. It sounded phenomenal and they didn't have to pump the bass out. Primarily the complaints came from people in the Meriwether Building. Based on the 20 or so complaints we have (and we were anticipating complaints to be around 50-100). There were no complaints from the West Hills, and no complaints from across the river. Zidell Yards is a good space for music events, but they need to do a better job about communicating their intentions, and this will be their biggest challenge. Some people were very upset because of the length of the event. We received about 15 complaints right after the concert. The very next week, we received around the same amount again, this time, the comments were mostly positive.

Melissa Stewart moves to adjourn the meeting, Carol Gossett 2nds the motion.

**Meeting adjourned 8:27 pm.**