2/12/2020

BRIDGETON

Bridgeton Neighborhood Association
Portland, Oregon

This document is the official response to the US Army Corps of Engineers Portland Metro Levee System Flood Risk Management Feasibility Study.

Access to the USACE report can be found at
https://www.nwp.usace.army.mil/levees/pmls/#documents

Submitted to:

Project manager, Laura Hicks
Email: PMLS-Feasibility@usace.army.mil
Mail to: P.O. Box 2946, Portland, OR 97208-2946

Tom Hickey
2020 Chair
Bridgeton Neighborhood Association
hickeyt+BNA.PDX@gmail.com

2/12/2020

BRIDGETON

Bridgeton Neighborhood Association
Portland, Oregon

BRIDGETON

TABLE OF CONTENTS

BRIDGETON

1. INTRODUCTION

On January 7, 2020 the U.S. Army Corps of Engineers released a report detailing their proposed $158M plan to upgrade the Columbia River levee system along the Oregon waterfront from the Sandy River to nearly Smith & Bybee Lakes (https://www.nwp.usace.army.mil/levees/pmls/). As climate change confronts us, the risk of severe flooding from extreme weather events increases substantially. This threat is in direct conflict with our growing city and its reliance on the infrastructure of the airport and industry in the bottomlands, and creates an ever increasing risk for the growing population in this area. Our defenses against flooding are inadequate, and levee upgrades are welcome and necessary.

As residents along the waterfront - living atop, behind and in front of the levee, the citizens of Bridgeton see our community put at an existential risk by this proposal. The USACE suggests installing a new 3- 5' high flood wall along Bridgeton Road, our only main street. In the current concept drawings, Appendix D Civil Design this flood wall meanders back and forth across Bridgeton Road sometimes to the south, sometimes to the north, and sometimes straight down the middle of the road without regard to the social, environmental, or capital consequences of these engineering choices (see drawings D18-22). In the text of the proposal, (page 204 sec4.18.2.4.) the report's only reference to the effect on Bridgeton Road neighbors:

> **The presence of the floodwall in PEN1 and PEN2 would reduce access to parking along N. Bridgeton Drive. Vehicles would need to park parallel to each other, and up to 74 of the 220 available parking spaces would be lost. Loss of parking spaces along N. Bridgeton Drive would result in increased use of parking along streets in the residential area south of N. Bridgeton Dr. and may increase the amount of time needed for residents of the area who rely on on-street parking to find a space at peak times.**

While an important factor, this does not begin to express the damage to our community that this flood wall, as designed, would create.

In its current form, the proposal makes no attempt to accommodate for the cultural upheaval it creates, the environmental degradation, or loss of property value, and, as currently proposed, will receive vehement opposition from the residents of Bridgeton. It is imperative that a substantial public conversation be undertaken to consider new options and review the current levee upgrade proposal under the microscope of best practices of urban design, focusing on neighborhood livability as well as safety and engineering.

BRIDGETON

The view of the water from Bridgeton Road and the top of the levee is a significant element for the livability of the neighborhood. Isolated from the rest of the city by a wide industrial district, we have few amenities beyond the waterfront. Whether it's the wildlife, boating, or simply the soothing effect of the view, the water is what had drawn people here, and to barricade the people from our single source of cultural identity is to destroy the community. Damage to livability goes well beyond issues of aesthetics - a thoughtlessly designed flood wall will barricade access to the water, create havoc with traffic and parking patterns, substantially reduce property values, and generate significant private expenses for the residents, businesses and marina owners who have invested in the community. We care about the threat of land/water division. Our neighborhood will be fatally damaged if this project is poorly designed.

Further, we have substantial concerns that the study itself is flawed, does not adequately address the issues and opportunities of the project, and willfully ignores the environmental and economic consequences of the construction.

Despite these concerns, the Bridgeton Neighborhood Association recognizes the significant opportunity that improving the levee offers for protection of the local district within the levee system and for the city, and the greater economic region as a whole. Further, we recognize the opportunity that a WELL DESIGNED and thoughtful levee improvement project can bring to improve community livability, rather than create urban blight from property degradation.

We support the project in broad concept, and we intend to keep a firm hand on the process. The Bridgeton Neighborhood Association (BNA) needs to be part of the design conversation, be represented at meetings, and participate on committees. Bridgeton has a neighborhood plan adopted by City Council as part of the 2035 Comprehensive Plan. See https://www.portlandoregon.gov/citycode/article/66204. A planning process and levee upgrades that align with the approved ***Bridgeton Plan*** will receive substantial community support. We intend to demand that funding be provided for design upgrades beyond the bare minimum of safety considerations.

2. FUNDAMENTAL OBJECTIONS

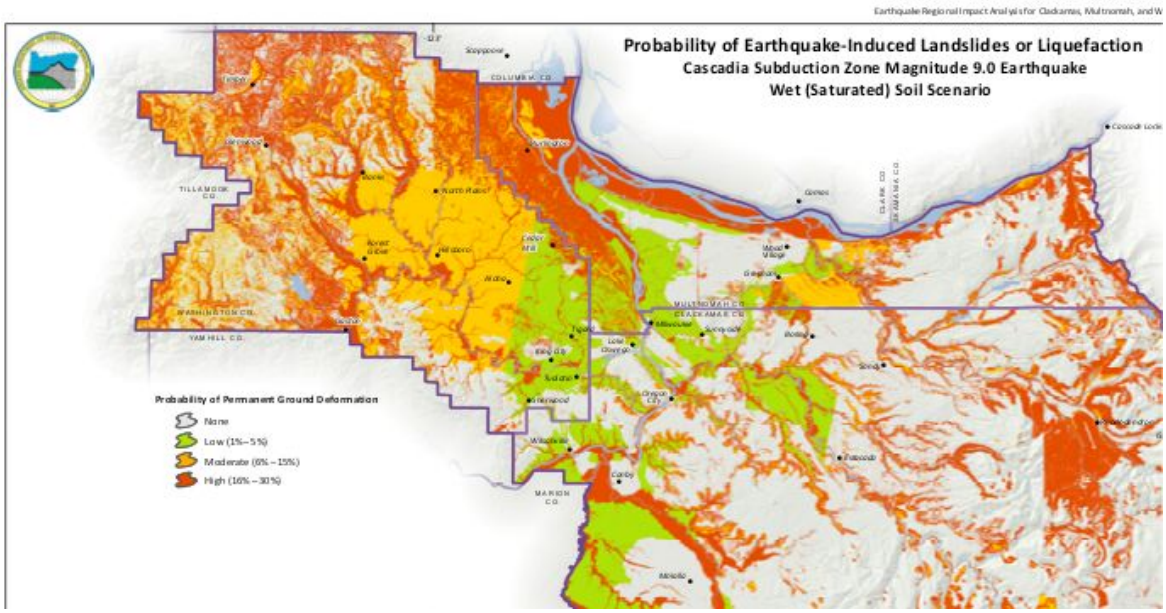
2.1. Flaws in the Study

The study fails to evaluate the potential use of the reinforced railroad embankment at the proposed levee at Pen-1. The study doesn't include all nine structural repairs required for FEMA certification. Without FEMA certification the people that live and work within the levee system would be without flood insurance. All nine elements must be completed before any benefit would accrue.

The study doesn't address a known problem at the I-5 interchange at Marine Drive. This low spot is in close proximity to where the flood wall ends under the I-5 Bridge and would permit water to penetrate Pen II from Pen I and vice versa. It is an inappropriate project constraint to eliminate this because it impacts another Federal agency. It is simply irresponsible to stick our head in the sand and assume this problem doesn't exist.

The project constraints are contrary to Congressional intent. A range of alternatives to construct the proposed flood wall on the river side of the levy were rejected because they would require an environmental study.

The proposed project design does not address seismic threats. Pen 1 is 100% susceptible to liquefaction. Pen 2 is 99.97% susceptible to liquefaction. The study only addresses levee fragility due to river damage. The project is designed to protect us from a 500 year flood yet, "*There is as much as a 40 percent chance a magnitude 8.0 earthquake along the Cascadia Subduction Zone off the Oregon coast will take*



place in the next 50 years, according to Oregon State University. There is a 10-12 percent chance the earthquake will be a 9.0 or higher." DOGAMI

The threat of liquefaction of the levee system during an earthquake is a substantially greater probability than an overtopping flood event, but the USACE study fails to address this threat.

The study fails to consider green infrastructure alternatives.

2.2. Environmental Concerns

Bridgeton exists on the boundary between the water and the industrial zone. As such we are hyper-sensitive to threats to the delicate environmental systems that remain. Despite the USACE's assurance that there will be no environmental impact of their project, we remain skeptical, and feel that it is imperative that any forward action on the project be fully reviewed for environmental impact and monitored to protect our environmental assets. To do otherwise for the sake of expedience is inappropriate.

Integration with Local Projects

The levee upgrade project must be coordinated to meet the standards and goals of the newly established Flood Safety and Water Quality District and the clear mandate to integrate environmental restoration, environmental justice, and climate resilience into its mission.

Toxic Waste Clean-up

The Audubon Society has identified multiple toxic sites that will have to be cleaned up in anticipation of the USACE project. Funding for those clean-ups will need to be addressed in the project budget.

2.3. Economic Concerns

The economic rate of return associated with the Tentatively Selected Plan is misstated because

- It doesn't include the cost of all the nine structural improvements to achieve the benefit of FEMA certification. These other "off-books" projects are estimated to cost approximately $40 million. The Benefit to Cost ratios and the Net Present Value of the return are misstated.

- It doesn't include the cost of remediating all 36 Hazardous, Toxic and Radioactive waste sites (Appendix F). Of particular concern to the residents of Pen 1 and Pen 2 are the levels of toxicity present at Pier 99 and Diversified Marine. The USACE has assumed that the costs to remediate would be borne by the local authorities. They have understated the cost to the local jurisdictions that would not be covered by 65% cost sharing considerably. Estimating the final cost of remediating hazardous sites is an inexact science. If it cost only $2 million per site, the state of Oregon would have to pay an additional $72 million.

- It includes no cost of environmental mitigation or remediation. The BNA is concerned about environmental justice. No environmental assessment has been completed. Flood plain considerations barely deal with plants, no trees, or animals. The study plan does not identify trees or plants that are planned to be cut but shows an area to be cut where there is a known Blue heron colony. Green infrastructure inside the PEN 1 area were requested by the Port of Portland but are not included for consideration (such as more trees, eco roofs, and bioswales). Some of the 15 protected birds species listed do not even live in this area leading us to believe that generic text was added. There are actually 200 bird species in this area.

- It has an unrealistic start date for construction; unrealistic time to complete construction and unrealistic assumption for the rate of inflation.

<u>The study ignores the higher Return on Investment of Alternatives 3 and 4 over TSP 5 because it erroneously assumes no capital constraints.</u> The financially proper method of capital allocation is to prioritize projects based upon the Internal Rate of Return up to the amount available in the capital budget. The state of Oregon does not have unlimited funds and therefore must prioritize projects to maximize the ROI on the portfolio of projects.

<u>The study has an inadequate assumption of the cost of property acquisition</u>. The 15 homes on Marine Drive will be inundated because of the flood wall proposed to be built along Marine Drive. These homes would become uninsurable and therefore unsalable.

The proposed plan overstates the net benefit because it doesn't adequately address the resources required to maintain the crews, lift equipment and closures in event of an emergency.

The proposed plan overstates the net benefit because it only allocates an incremental $34,000 per year in operating and maintenance costs for over two miles of additional sea walls and an equivalent amount of new levee. MCDD has not confirmed that the new levee system would only cost an incremental $34,000 to operate.

2.4. Safety Concerns

Flood Insurance

The impact of this project on FEMA flood insurance classifications and the flood plain designation of the district are important topics to property owners and is not a topic considered in the USACE report. Those ramifications need to be resolved for neighborhood buy-in.

Emergency Vehicle Access

Bridgeton Road and neighborhood streets must remain accessible to emergency vehicles.

Fire Hydrants

Many of the hydrants on Bridgeton Road are on the north side overbuild. A flood wall would restrict access for fire fighting.

Emergency Egress

Once the closures are in place there is no vehicular egress from any of the homes on the south side of Bridgeton Road. The residents would be trapped in their homes with the peril of rising waters in the Bridgeton Slough and rising waters in the Columbia River.

3. INSIDE BRIDGETON

A flood wall along Bridgeton Road has repercussions for all of our residents and property owners, whether in marinas below the levee, townhouses upon the levee, or on the smaller streets between the levee and the Columbia Slough. In oral presentations the flood wall is routinely represented as “3 feet tall”. This is contraindicated in the documents which suggest a varying height from 3 to 5 feet (up to 6’ in at least one section). The difference is significant from a neighborhood livability point of view. USACE’s misrepresentation of this critical issue comes across as an attempt to obfuscate and manipulate this process. This contributes to neighborhood mistrust. In all upcoming design conversations, wall height is of equal significance as alignment.

3.1. Marinas

There are 15 licensed Marinas along Bridgeton Road and 175 homes or dwellings located on the water that will be directly affected by any levee improvements or management. Existing easements protect our riparian rights and our use and access to the waters.

Access Ramps

Every marina has an access ramp that rises and falls with the river height. Each ramp will require integration into the flood wall system for resident access. Many marinas have secure private access gates at the top of the levee. This secure access gate will also need to be integrated into any proposed structure. A flood gate will be required at each ramp.

Dumpsters/Recycling

Each marina has a dumpster and recycling station at the head of their ramp, where private contract trash collection takes place. This system will need to be preserved or upgraded.

Utilities

Each marina has water pipes, gas, and electricity lines mostly buried in the levee overbuild. These services branch perpendicular to the levee and emerge from underground beneath each access ramp. These services will need to be preserved or upgraded as part of any substructure project.

Pilings

Each marina has pilings driven into the river bottom to secure the floating structure. These pilings are designed to slightly exceed the current levee height to protect the marinas from disintegration during an overtopping event. These structures will require redesign and rebuilding in each circumstance to accommodate additional height requirements as well as to absorb the additional structural stress that the extended length and higher water will generate. Nearby marinas on the Hayden Island side of the channel will be similarly affected.

Parking

Every marina maintains parking on the overbuild of the levee for residents as per city code, see **Title 33, Planning and Zoning Chapter 33.266**. Lack of parking violates city development requirements. Loss of parking spaces adjacent to the marina will eliminate floating home value. Knowledgeable realtors & brokers state that floating homes without parking have literally no value. Without parking, floating home property owners will be negatively impacted to the greatest degree. Considering housing shortages and livability issues already stated, loss of parking will create havoc in the community and will meet with substantial resistance.

3.2. Residents on the Levee

Degradation of Property Value

Residents facing the water fear the aesthetic loss of their view of the river, which is one of the chief reasons to live in Bridgeton. We have no grocery store, no village center, and walkability is entirely a function of the pleasure of a casual stroll down the levee. Obstruction of the water view substantially degrades the reason to live in Bridgeton at all, and as a consequence, has significant financial repercussions to property value.

Structures on North Side of Bridgeton Road

There are a small number of structures on the levee overbuild, some occupied, some serving as business offices and storage sheds. Each will require a separate strategy to accommodate it into the final plan.

Parking

There is no parallel parking allowed anywhere on Bridgeton Road. Residents on the south side of Bridgeton Road do not park on the overbuild as their marina neighbors do. There is no infrastructure, sidewalks, striping or even pavement, on the side-street roads adjacent to Bridgeton Rd. If marina parking is removed, competition for parking on the remaining side streets would become bitter.

3.3. Residents Behind the Levee

Degradation of Property Value

Homes behind the levee, which includes townhouses within the Roth Estates HOA, residences on Marine Drive, and the homes on cross streets that reach the Columbia Slough, are less impacted by the aesthetic damage to the neighborhood but share in the financial loss that urban blight from property marketability loss.

Slough Drainage

The portion of Bridgeton Slough between Marine Drive and Bridgeton Road provides primary drainage for Bridgeton residents below the levee. Efficient water removal from this portion of Pen-2 will protect lives and property.

Regardless of the long-term proposed levee project, Levee drainage pumps need to be improved, redundant features added and maintained to the highest degree possible now.

3.4. West End Residents and Businesses

Degradation of Property Value

Bridgeton residents on N. Anchor Way and N. Harbor Drive have similar concerns regarding loss of value of their property in the absence of a quality design improvement project.

Emergency Evacuation

The emergency plan for this area may differ due to the shelter-in-place opportunities provided by multi-story apartment buildings and hotels.

Illegal Campsites

A flood wall along the undeveloped levee top that creates an isolated zone of ambiguously-supervised land between the wall and the water will be an attractive place for campsites to assemble. Unmanaged and unresponsive to community standards, these camps can degrade livability for the local residents. Campsites along the waterfront will create a high risk for environmental damage as well.

4. OUTSIDE OUR BOUNDARIES

4.1. Marine Drive Affected Residences

The residential houses east of the Portland Yacht Club sit on the crest of the levee north of and several feet higher than Marine Drive itself. A flood wall along Marine Drive will be below the high point of the levee and serves no functional purpose, while creating a daily danger to the residents by blocking sightlines onto a busy highway when exiting driveways. Breaks in the levee height at two individual driveways can be sealed with individual flood gates. Appendix C **Levees** p. 64 seems to make this very case, in contradiction to the general text description of the project alternative.

4.2. East Columbia Neighborhood

Bridgeton recognizes that the liveability needs of East Columbia center around flood safety and evacuation plans, and less on the subject of cultural cost/benefit discussions. We hope that the residents of East Columbia recognize that potential cultural shifts in Bridgeton will affect their neighborhood as well, for better or worse, and that they will ally their efforts with our own.

It is our hope and expectation that both sets of needs will be fully addressed in the final USACE design package, lifting up both neighborhoods with a world-class project for safety and urban improvement together.

4.3. Columbia Edgewater Country Club

Bridgeton supports public access to the levee tops. The completion of the 40 Mile Loop Bike Path has long been a goal of our Neighborhood Plan. However, we also recognize the issues the Columbia Edgewater faces in terms of protection of private property where their golf course abuts Peninsula Canal levee. The final USACE proposal must satisfy both of these concerns.

4.4. Hayden Island

A higher levee on the south bank of the Columbia River will necessarily create higher water issues on Hayden Island.

<u>Marinas</u>

The issue of piling height as discussed in Sec. 2.1 applies equally to the residents on the north side of the channel. Higher water will lift the marinas right off the top of their pilings and destroy them. Funding to upgrade the piling systems will be required.

<u>Land Structures</u>

Property value and flood insurance ratings are threatened by the creation of higher water level risks due to a higher levee on the opposite shore.

5. EVACUATION PROGRAM

We welcome an updated evacuation plan. Points to consider:

5.1. Shelter-in-Place

The west end apartment and hotel buildings should be inspected and certified where appropriate as flood shelters. Townhouses on top of the levee may also be able to serve as refuges.

5.2. Unified Communication System

A city supported emergency communication system is vital:

- support neighbors helping neighbors to spread the alarm during an evacuation
- Integrate with existing Neighbors Together (Block Watch) programs
- Maintain comprehensive contact lists
- Emergency Siren system
- Evacuation training through NET or subsidiary volunteer system
- Annual education programs announced by direct mail
- Evacuation Route signage

6. RECOMMENDATIONS AND OPPORTUNITIES

6.1. Creative Urban Planning

The USACE proposal suggests that the only structurally sound solution for the flood wall is to locate it on the centerline of the levee or inland of the center. The Bridgeton Neighborhood Association rejects that premise. With enough incentive, partnerships, and creative solutions can be found that will not compromise our quality of life on the levee. Construction of any improvement project will obviously create a mess for residents and businesses. A coordinated approach will allow customers and residents easy access, create signage so customers know businesses are open and support clean up efforts.

We expect that the USACE will make every effort to find partnerships to enhance the selected levee improvement project. See 6.4 for one example.

6.2. Design Features

An acceptable flood wall will be designed to a residential scale, with residentially appropriate design features such as brick cladding and a stone cap. The height should be consistently 36-42” above water level. Low points in the levee requiring additional height should be accommodated with modular add-on segments for emergencies only. Regularly space taller piers to support these add-on segments are acceptable.

6.3. FEMA Compliance

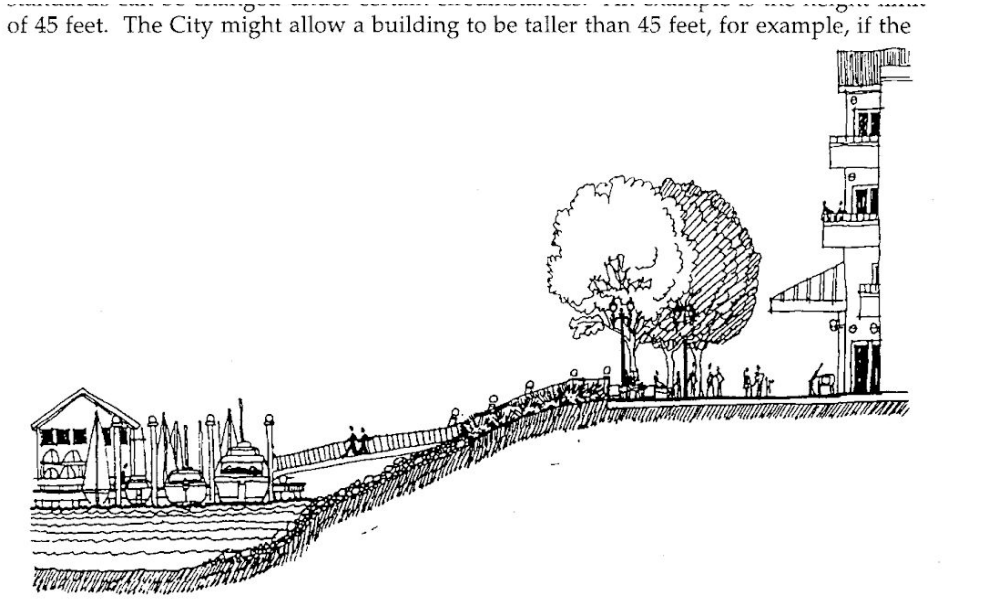
The approved project plan must include all necessary elements to bring the protected areas into full compliance with the latest FEMA standards and coordinate with FEMA to assure that compliance.

6.4. Earthquake Resilience

The proposed project design does not address seismic threats. Any project to upgrade the levee should include opportunities to reinforce the system against liquefaction and other damage.

6.5. The *Bridgeton Plan*

Integrate the proposed flood wall into existing plans for a promenade along the levee as described in the Bridgeton Neighborhood Plan, which is an approved element of the Portland City 2035 Comprehensive Plan.



Courtesy of Judy Galantha, Portland Bureau of Planning

6.6. No Net Loss of Parking

Preserve or replace the existing parking on Bridgeton Road. A rough scaling from your satellite images in Appendix D suggests that there is approximately 2500 linear feet of parking frontage along Bridgeton Road. This portion of the project needs to be designed to either:

- Detour north of the parking along the levee buildout edge as a fixed wall with breaks at marina ramp openings, or;

- Be constructed with removable panels that can be installed only in case of emergency as shown in Appendix C.

6.7. The *40 Mile Loop*

Integrate the flood wall construction into plans for the 40-Mile Loop bike path, closing the so-called “Bridgeton Gap”. The flood wall could serve as an important divider to separate cyclists from other traffic.

6.8. Bury Utility Wires

Improve the levee while also improving the quality of the Bridgeton neighborhood by burying all overhead utility wires under the road.

6.9. Upgraded Infrastructure

Add 21st century infrastructure such as electric vehicle charging stations. There is a growing need for electric car charging on the levee and across America. Bridgeton Harbour Inc., a six-floating home community and corporation on Bridgeton Road, spent approximately 1 1/2 years working with MCDD and USACE in 2018-19 and received approval to add six charging stations at the head of its private parking area on top of the levee. Support for this new infrastructure can be integrated into the rebuilt levee.

6.10. Public Water Access Point

Integrate the flood wall construction with the design and creation of a public non-motorized recreational water access point along the levee. Portland City owns a stretch of levee property just west of the end of Bridgeton Road where such an access could be built. The Oregon State Marine Board is aware of this opportunity and has an appropriate grant program to assist with funding.

6.11. Sidewalks

Provide consistent sidewalks throughout the neighborhood.

6.12. Dumpster Stations

Build integrated dumpster stations at each marina entrance. These structures can serve as stability points for the flood wall as a whole.

The residents of Bridgeton look forward to a thoughtful conversation with Portland City urban planners, the US Army Corps of Engineers, Levee Ready Columbia, and the Pen-2 community regarding the best solutions for integrated safety AND progressive community development.

BRIDGETON

7. CONTACT INFORMATION

Bridgeton Neighborhood Association

Mailing address
% North Portland Neighborhood Services
Historic Kenton Firehouse
2209 N. Schofield Street
Portland, Oregon 97217

General e-mail
BNAneighbors@gmail.com

Board of Directors

Tom Hickey, Chair	hickeyt+BNA.PDX@gmail.com
Matt Whitney, Treasurer	
Bridget Bayer, Secretary	bridgetbayer@me.com
Erik Molander, Land Use	
Gorgy Gonzales, Events	
Jon Peterson, at-Large	
Walter Valenta, at-Large	
Paul Wargnier, at-Large	
Jan Strand, at-Large	

Website: www.livebridgeton.com