



Public Works Department City of Bellingham

Broadband Advisory Workgroup Meeting Notes Tuesday, November 2, 2021 6:00pm – 7:30PM Zoom

Workgroup Members in attendance:	Linda Fels Michelle Kopcha Spencer Moore Steve Spitzer RB Tewksbury
Ex Officio Members in attendance:	Michael Gan Gina Stark Atul Deshmane Kurt Gazow
Members excused:	Kristopher Keillor Milissa Miller Terry Davis
Guest Presenters:	Jory Wolf, Magellan Advisors LLC Greg Laudeman, Magellan Advisors LLC Kim Kleppe (Mt. Vernon)
City Staff and Facilitator in attendance:	David Roberts, Facilitator Eric Johnston, Public Works Director Marty Mulholland, IT Director Rush Duncan, Public Works Webinar Support
1. Welcome, Introductions, Agenda Review, Approval of Notes	David Roberts started the meeting at 6:00 PM. Notes from October 5 meeting were approved.
2. Administrative & Technology Items Update	Eric Johnston recognized and thanked Marty Mulholland for her many years of service to the City. Marty is retiring next week after. Don Burdick will provide IT support for Public Works and will be attending the Broadband Advisory Workgroup meetings in the future. Eric also shared that the City's mid-year budget adjustments including a new position for a Fiber Plant Technician. This person will monitor the City's internal fiber system. Zipty has applied for a franchise agreement for physical infrastructure within the City of Bellingham. This proposed agreement would go to the City Council for approval via ordinance in the month of December. The franchise agreement is the right for the telecommunications company to work within the City right of way.

Engineering

104 W. Magnolia Street, Suite 109
Bellingham, WA 98225
Phone: (360) 778-7900
Fax: (360) 778-7901
TTY: (360) 778-8382
Email: pw@cob.org

Natural Resources

Physical: 2200 Nevada Street
Mailing: 2221 Pacific Street
Bellingham, WA 98229
Phone: (360) 778-7800
Fax: (360) 778-7801
Email: pw@cob.org

Operations

2221 Pacific Street
Bellingham, WA 98229
Phone: (360) 778-7700
Fax: (360) 778-7701
Email: pw@cob.org

Regarding schedule for discussions with Magellan, Eric suggested December meeting be focused on business models, that the January and/or February meetings engage Magellan around the definitions the Workgroup has developed.

Question: Is Zippy's focus is on business, commercial, institutions, or residential? **Greg Laudeman:** Zippy bought Frontier's assets. They are removing their DSL lines and replacing it with fiber. **Eric Johnston:** We will know more after the franchise is approved. **Kim Kleppe (Mount Vernon)** shared that Zippy has invested \$500M in 15 cities, mostly in Eastern Washington and Oregon. In Anacortes they offered free installs.

3. Magellan Advisors Update

Greg Laudeman provided an update on Magellan's activities last month. He thanked everyone for their feedback on the survey and their comments. The survey is ready to go. A key role for the workgroup will be to get the word out in the community and support Magellan's efforts with the survey.

Greg also indicated Magellan is ahead of schedule on the market assessment work which was scheduled to start later in the year. They expect the market assessment to be done by the end of the year if not before. The workgroup can help with any input they have, particularly private sector assets in the community. The asset inventory is also off to a solid start.

The next big task is review of the business models. The Magellan team is seeking feedback from the workgroup members on pros and cons for the business model. Greg suggested using the December meeting to review various business models and to determine what additional info is needed. Then they can come back for a deeper dive when it is most appropriate. The conceptual network design is to provide cost and coverage estimates.

Question: What is the proposed date for starting the survey? How is the consultant group or Eric's office promoting the survey, so we know where to focus our efforts and promote the survey? **Eric:** The anticipated plan is to make the survey link live through the City broadband webpage. Once that link is up and live, he will share that with this committee. Shortly after, there will be a City press release that hits several thousand residents as well as announcements on social media. The City also has the list of groups provided by the Workgroup. As we progress through the survey, if we don't see the results we want, then we will increase the outreach. Paper copies can also be distributed at the library. **Greg Laudeman:** As we are ahead of schedule, I would recommend an initial push around the holidays, but then looking at January for a big wrap-up push.

Question: Have changes been made to the survey? **Greg Laudeman:** Yes. There were minor changes. One was regarding providers that have been updated, and the second was reassuring the public that the data would not be used for other purposes. **Eric Johnston:** I will forward a line-by-line response to the survey feedback.

Question: What about outreach to parents at the schools? **Eric Johnston:** Yes. We will coordinate the survey with the communications staff at Bellingham School District. **Greg Laudeman:** We typically see the schools responding

better after the holidays. **Comment:** Parents of school kids could be a significant data point.

Question: Is there going to be further segmentation (of the data) due to different demands in the public? And as you are getting responses to the survey, how can we help with communities that are under-responding? **Greg**

Laudeman: We can provide interim reports based on zip codes and can coordinate to address this issue. We can also do some analysis breaking down responses on demographics and data. **Jory Wolf:** We might want to consider mail blasts to key lists every couple of weeks. **Eric:** We will adjust based on the response.

4. Kim Kleppe: Mt. Vernon

Eric welcomed Kim Kleppe from the City of Mount Vernon. Kim has worked in IT for Mt. Vernon for the last 36 years.

Kim shared some perspectives on Mount Vernon's broadband system and what they have learned. He pointed out the importance of having buy in with your community and its leaders. He spoke of making sure you can take care of the City, reduce your costs for the citizens, and reduce costs for yourselves when you can. Kim pointed out the opportunity to grow strong partnerships with other members of your community (government, community, and business) and the importance of having a community champion.

You also need tech community buy in and champions as well. Kim pointed out the importance of the business plan phase, of choosing model and finding a source of funding. Mount Vernon provides dark fiber access. He spoke of the difference of government use agreements versus a dark fiber agreements. Kim also spoke of the importance of good maintenance to keep a system running. They just added two new providers, making a total of 6.

Mount Vernon has an open access hybrid model chosen back in 2000. They wanted an open access model so people have choices. Their "lit system" is 65% of the network. Their passive optical network system allows Kim to turn on providers as needed. At this time, 20% is government use, and 7% is dark fiber leasing.

The City does 95% of their installs and are working on a buildout of the infrastructure including business zones. Infrastructure is a major component of the costs. They currently have three staff members doing the work.

Kim noted that having good document management system and GIS to manage your assets is important. Splicing and connectivity gets complicated, so it is important to track and plan ahead, especially for maintenance.

They received two grants for their system over the years and have never been in the red. They have built out their system with its own funding. They are now connecting all of the government entities. The City does the install all the way to the business and own all of the fiber. That way they don't have to argue about the last mile cost. They do not answer repair calls from businesses. That is handled by the providers. They are also doing some limited residential installs.

Question: What was the original market like? How many service providers were their before you started? What prompted the business model you chose?

Kim Kleppe: In 1998, we had only DSL available. The service providers were Frontier and Comcast. Wave came around in 2000. We didn't have the service we wanted. We wanted fiber infrastructure. We wanted the community to have choices, and to get broadband fiber out where we could.

Question: In today's world, there is a huge amount of federal funding for ISPs. How are you managing in this current period of exuberance? Are you seeing overbuilds? How is your relationship with ISPs and how is it evolving? **Kim**

Kleppe: We have 6 ISPs in Mt. Vernon. There are no current issues or conflicts. We are building in the same areas focusing where this is only copper.

Question: What percentage of your business community is hooked up to your fiber infrastructure? **Kim Kleppe:** We serve about 260 businesses right now. I am not sure how my businesses are Mount Vernon, but we cover all areas of town.

Question: What are the revenue streams you are seeing? You have licensing fees, leasing, selling services to businesses. Are those the three revenue streams? **Kim Kleppe:** We have a few others. A license to providers for activity on the lit system allowing providers to hook up a customer for \$175. We also give a break on the business side to buildings that have multiple businesses in the same unit. With dark fiber leasing, we charge \$350 per month. On the government use side, we charge \$75 per dark fiber line per government entity. We grandfathered the schools in at \$50 per month to connect them to dark fiber. Our philosophy is that it has to work for the City, the provider, and the customer. It has to cover our costs and growth, but not make a ton of money.

Question: I often hear that an open access network is not going to work. What was the point where you decided to do a hybrid model and how did you know there would be a demand to use your lit fiber? **Kim Kleppe:** our philosophy was that it had to work for all three parties. When you are competing against the providers, it has to be worth it for everyone involved. That's why we went that route. There's no law that says you can't do that.

5. Plus Codes (RB Tewksbury)

Plus Codes are like street addresses for people or places that don't have one. Instead of addresses with street names and numbers, Plus Codes are based on latitude and longitude, and displayed as numbers and letters. With a Plus Code, people can receive deliveries, access emergency and social services, or just help other people find them right on Google Maps or other mapping products. Plus Codes technology is open source and free to create and use.

- Plus Codes are simple, free to use, open-source digital addresses for the entire world
- Use Plus Codes to share any location—your home, a store, a meeting place - even if there are no street names or even streets.
- Plus Codes work whether you're online or offline—you don't need an internet connection.
- Plus Codes are based on a set of 20 alphanumeric characters so they work seamlessly across borders. They do not include easily confused characters, are not case-sensitive, and they exclude vowels.

RB demonstrated the way plus codes work using the Plus Codes website [<https://maps.google.com/pluscodes>]. The area described by a plus code can

be as small as 3 meters by 3 meters. This is a grid system, technology that is already built into Google Maps/Google Earth.

RB recommended the City promote the use of non-postal addressing standards based on plus codes. He feels that everyone deserves an address, and plus codes are a solution. The system could help address many equity issues and can be applied along side systems already in place.

Question: Our houseless members would benefit from this approach, maybe not in a broadband context, but by providing a way to find people. There are a lot of barriers to accessing grant programs that result from not having a mailing addresses or a way to reach people reliably. This would help with giving and receiving aid. **RB Tewksbury:** Plus Codes can also help with asset management to determine where we need additional coverage.

Comment: It would be great to use to send out a ballot so people can vote.

Comment: Thank you. We should look at this, digest it, and have a further conversation. There are real benefits in the Bellingham community.

RB Tewksbury: I reached out to the Whatcom County Sheriff's office to see if it can assist with search and rescue. To define a space that doesn't change and works offline is huge.

Question: What about transients? Would this help? **RB Tewksbury:** It could record where someone last interacted with that person, perhaps helping with record keeping. We are only limited by our imagination.

6. Discuss format & style for the final report to Council

Eric Johnston shared that he wants to start a conversation about the Workgroup's end product. What should it look like? He offered to forward some example documents for reference. Eric spoke of a range of different documents produced by workgroups for the City from detailed multi-page reports to one-page resolutions. The background work will come out of what you have already done including the definitions and the work being done by Magellan. We can share a report Magellan has provided to other cities. The Magellan report will be an appendix to this group's information.

It's a good time to think about the format of something going to the City council. There is typically a one-page Agenda Bill summary, as well as a short summary statement. It could also include a staff memo and additional reports. We could look at the Fairhaven Park Task Force and see the reports they have produced.

Question: We need a champion. Are we right to assume you (Eric) are the champion for this work? **Eric Johnston:** You bring up a good point. Who is driving the conversation? It is the City council and Mayor Fleetwood. They directed that this work be done and have asked for your recommendations. They are also your champions.

Comment: It will be important that we provide background info, not voluminous information. The heavy lifting should come from the consultant.

Comment: We have been listening to a lot of information and need some time to talk with the fellow broadband members to determine what to digest, how to proceed, and what the document should contain.

Comment: I suggest a solid hour just hearing what the broadband group has to say - likes/dislikes, how folks' perspectives have changed, and what folks are thinking.

Comment: Can we continue in each meeting going forward to have a space for discussion within the group? We don't have business models from the consultants yet, but what are we anxious about? Where do we feel we are missing something? What should be in the report? What have we learned that could be in the appendix? I would like to have a concise 5 to 10 page report that gives our thoughts behind it and what we are recommending.

Question: Eric, do you think it would be useful to send out a primer of terminology, acronyms, etc.? **Eric:** I have found that common definitions are critical to an understanding of the conversation. Your workgroup report could include an attachment with a list of definitions or abbreviations. It could also include the Magellan report, and perhaps a simplified version of Council recommendations. This should be decided by the group.

Comment: I agree that a lengthy period of time (for discussion) would be useful before we receive the consultant report as well as after we receive it.

7. Next Meeting Agenda

David asked about topics for the upcoming meeting on December 7th.

Atul Deshmane and Gina Stark suggest that an update on what the Port/PUD is doing would be timely. Also, it could be useful to have an update on how we (Port/PUD) are working with the County.

Eric Johnston recommended the December meeting be used to begin talking about business models. **David Roberts** suggested that the Workgroup get back to the definitions and can plan for the open conversation in January. **Comment:** we also need updates on the survey in the next three meetings. **Eric Johnston:** I suggest we have 15 minutes for the Magellan update, 45 minutes for the open discussion in December.

David Roberts sent out a doodle poll to Workgroup members to hear their thoughts on how this process is going. He will have a report completed for the January meeting.

The meeting was adjourned at 7:45 PM.

Next meeting scheduled for Tuesday, December 7th at 6:00 PM via Zoom or possibly in person at the Fairhaven Library (Fireplace Room)