



# NEIGHBORHOOD & LONG TERM PLANNING, PUBLIC FACILITIES, ARTS & CELEBRATION COMMITTEE

## COMMITTEE MEETING

~ MINUTES ~

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Wednesday, October 14, 2020

2:00 PM

Sullivan Chamber

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**The Neighborhood & Long-Term Planning; Public Facilities, Arts and Celebrations Committee will conduct a public hearing to discuss the process for conducting the feasibility study for municipal broadband and the Request for Proposal.**



**NEIGHBORHOOD AND LONG TERM PLANNING, PUBLIC FACILITIES, ARTS AND  
CELEBRATIONS COMMITTEE - OCTOBER 14, 2020**

TRANSCRIPT OF PROCEEDINGS

**Patricia M. Nolan:** Oh, that's the hour of 2:00 having arrived, I will start the Meeting of the Neighborhood and Long Term Planning, Public Facility, Arts and Celebrations Committee. The call of the Meeting is to conduct a public hearing to discuss the process for conducting the feasibility study through Municipal Broadband and the Request for Proposal. This meeting will be televised and the Governor's Executive Order issued on March 12th, 2020 has authorized the use of remote participation at meetings of the City's Public Bodies in response to the threat posed to the public by the COVID-19 virus and issued guidelines for the City's use of remote participation. In addition to having members of the Council participate remotely, we have also set up Zoom teleconference for Public Comment. Please be aware that Zoom is only being used for Public Comment in order to watch the Meeting. Please turn into Channel 22 or visit the Open Meeting Portal on the City's website. We'll start the Meeting first by having the Clerk call the role.

**Madam Clerk:** Councillor Nolan.

**Patricia M. Nolan:** Present.

**Madam Clerk:** Councillor Carlone.

**Dennis J. Carlone:** Present.

**Madam Clerk:** Vice Mayor Mallon.

**Alanna M. Mallon:** Present.

**Madam Clerk:** Councillor McGovern.

**Marc McGovern:** Present.

**Madam Clerk:** Councillor Zondervan.

**Quinton Zondervan:** Present.

**Madam Clerk:** And there is a quorum present.

**Patricia M. Nolan:** Thank you. And Councillors McGovern and- do we need to see that it's clearly audible to them?

**Marc McGovern:** It is.

**Madam Clerk:** Councillor Nolan is it clearly audible?

**Patricia M. Nolan:** Yes.

**Madam Clerk:** Councillor Carlone.

**Dennis J. Carlone:** Yes.

**Madam Clerk:** Vice Mayor Mallon.

**Alanna M. Mallon:** Yes. Thank you.

**Madam Clerk:** Councillor McGovern.

**Marc McGovern:** Yes.

**Madam Clerk:** Councillor Zondervan.

**Quinton Zondervan:** Yes.

**Madam Clerk:** And the Meeting is clearly audible to all.

**Patricia M. Nolan:** Thank you. I also want to note that Mayor Siddiqui is present in the Meeting as well, and she is as Mayor, an Ad Hoc member of this Committee. So I want to start the Meeting um, with a few uh, remarks about how we got here. And then we'll turn to Public Comment and then we'll hear some from the City and then we'll hear from the Council. Um, so I just want to set it to remind all of us that this Meeting is about the Municipal Broadband uh, effort in the City. The uh, Broadband Task Force had been set up and worked pretty hard for two years from 2014 to 2016. And one of the recommendations as they ended their study, it's a very lengthy document that I recommend everybody read. We can send around the link to all of the Council Members and it's available to the public is that they recommended a feasibility study to determine whether it would make sense for the City to move forward with some kind of Municipal Broadband program. And my understanding also is that an RFP had started being prepared at that time and then work stopped in that RFP never moved forward. During the next few years, the Council passed several orders, uh, ex- expressing their support for Municipal Broadband Study, at least the feasibility study. But those orders languished and nothing was started. What did happen was that in November of 2018, the Council approved a digital equity study, which was a 12 month study uh, that hopefully had been initially contemplated to be completed last January. Um, I saw a draft summary of that report even prior to taking office in December of 2019. That study is still in process. Uh, it was delayed further by COVID and uh, only this summer where some of the residents in public housing surveyed. I believe we will hear from the City about the status of that. The reason that ties into the feasibility study of course is that that digital equity study is meant to provide us all with a background so that we can include those findings and summary and understanding in the RFP because that will be very germane to the feasibility study for Municipal Broadband since equity in bridging the digital divide is one of the key reasons why uh, many in the City are interested in Municipal Broadband. So in February, the Council- of this year, the Council passed an order for an RFP for feasibility study by April. And in May, after the Council voted down the IT Budget, um, it became clear that the uh, urgency around this issue was growing and the City Manager promised to study with an RFP, uh, to commence right into the beginning months of this fiscal year. And in August, the Vice Mayor and I met with the City staff uh, and we agreed to set up a meeting to review the elements of the RFP. And so that's what this Meeting is, is meant to be is for the City Council to review the elements of the RFP. We are hopeful we can have a productive meeting. We will start with Public Comment, then have some remarks from the City staff about the IT Director Patrick and also Lee Gianetti who has been taking the lead and perhaps the City Manager who is also on this call will want to uh, talk again about uh, his involvement in this. And

then the next part of the Meeting will be questions from the City to the Council about our expectations for the study. I'm hoping we can all focus on providing guidance for the City staff as they finalize the RFP. Um, and I'm- I will express I'm a little frustrated that we're still uh, likely going to need yet another meeting for the City to present where they are and thinking about the RFP in the study. Um, so right now what we'll do is move to Public Comment, uh, remind people that this is a Committee meeting. There's just a few people uh, signed up and you will have up to five minutes to speak. The first speaker is Robert Beltran followed by Roy Russell and Lee Ferris.

**Naomie Stephen:** Robert Beltran has not joined the call. We will go to Roy Russell.

**Roy Russell:** Okay. Can you hear me okay?

**Patricia M. Nolan:** Yes. Thank you, Roy. Go ahead.

**Roy Russell:** Great. Uh, yes, my name is Roy Russell. Uh, I live at 40 Cotter Street in Cambridge. Uh, and I'm also with uh, Upgrade Cambridge, an organization that's a grassroots organization which has been working to uh, get the City kind of back on track with Municipal Broadband. Um, uh, I want to speak today um, uh, around the uh, issues that we believe should be included in, in the RFP uh, for the feasibility study. Um, I've sent a copy of these to the Clerk, so there's a printed copy as well. Um, and I will say uh, we're also happy at any time to, to sit down with uh, City and, and discuss further uh, further questions. Um, so first of all, what is the goal of building the fiber optic network, the RFP. Before even writing it you need to consider what is that Municipal RFPs vary in how they answer that question. Uh, some possible answers are uh, we want a fiber connected to every residence and business in Cambridge. Uh, two we want fiber passing every residence and business in Cambridge with a connection to uh, into the, uh, the house and apartments upon request. Um, three uh, do we do a needs gap analysis and design a network to fill in uh, the gaps. Onto network design. Um, the network design should create a detailed design for a network to meet the identified goal. This requires inspection of physical facilities, including underground conduits, uh, existing dark fiber, poles, and physical spaces for the network electronics. Cost. The network design should lead to a reasonably accurate cost projection for the build. Business models. There are a range of business models possible. Upgrade Cambridge urges the City to retain full ownership of the physical network, but sell open access to private partners who would provide retail services. This business model enables the City to collect revenue and to require that the partners abide by some terms and conditions such as net neutrality and privacy protections. Three, revenue. Core to the feasibility of Broadband is how many will buy it, uh, otherwise known as the take rate, uh, and at what cost. This is generally done through marketing surveys. The RFP needs to address the unique environment of Cambridge, encompass our digital equity goals, and include outreach to explain Municipal Broadband prior to the survey. Absent that outreach, you have a process biased towards an answer of unfeasible. Financing. The network design, the cost estimate, and a rough construction

schedule define the need for money. The construction schedule and revenue projections define the income the project will generate. The gap until the system is fully built uh, and, and people are paying uh, will need to be financed presumptively through debt. How much the City will have to borrow and what the structures for that borrowing can be outlined. Related to financing is the possibility of creating a joint powers entity with one or more other municipalities which can shield the City from some liabilities. The RFP should adjust the possibility of using this structure and its impact on financing. Staffing. The RFP must define a process to assess organizational readiness of City staff and propose additions to staff to provide ongoing expertise and oversight. Deliverables. The deliverables at the end of the feasibility study should be structured so that the decisions the City has to make are clear and concise. The network design should be of a quality that it can be used with minimal work as the basis for a request for construction bid. The financing analysis similarly needs to be structured to make-taking this to bonding agencies. We don't need to build in yet another process to get from a yes to an actual start of construction. Uh, thank you very much and I have a minute left, so I yield my- rest of my time.

**Patricia M. Nolan:** Thank you, uh, Mr. Russell. Next speaker is Lee Ferris, followed by Saul Tannenbaum.

**Lee Farris:** Good afternoon, can you hear me?

**Patricia M. Nolan:** Yes, Lee, go ahead.

**Lee Farris:** Uh, my name is Lee Ferris. I live at 269 Norfolk Street and I'm speaking today for the Cambridge Residence Alliance, which has supporters all across the City. Uh, and uh, we have long supported having some form of Municipal Broadband. I am glad that we uh, that our City is now looking at doing an RFP about that. Uh, we know that there are gaps in coverage and we know that um, not everybody is able to get uh, Broadband either for financial reasons or even um, owing to where they live. We also know that uh, there is no competition in most parts of Cambridge and many middle income people and upper income people complain about the cost and the poor quality, the low speed, relatively low speed of the Broadband that they do have. So um, I certainly am not uh, anywhere as uh, informed as upgrade folks and I appreciate their comments very much and generally support them. Uh, but I think um, trying to make sure that Broadband is uh, fast, is affordable to um, a wide range of people and is broadly available in the City are goals that I would look to see. Uh, I do also want to uh, uh, point out as Councillor Nolan described that there have been many delays by the City in uh, following up on the original Broadband study that it did. And I hope that now we will move forward quickly without further delays, albeit carefully and thoroughly. So I am wondering if the RFP that the Council is going to be discussing today is public, and if so, how we can access it. So that would make it easier to comment um, about it. Thanks for your time and I hope that we have a um, effective meeting today and move forward. Thank you.

**Patricia M. Nolan:** Thank you, Lee Ferris. The next speaker is Saul Tannenbaum followed by Christopher Schmidt.

**Saul Tannenbaum:** Hi, I'm Saul Tannenbaum, excuse me while I mute my television since this is like a dual process. I'm Saul Tannenbaum, 16 Cottage Street. I'm from Upgrade Cambridge. Um, I fully endorse what my friend Roy Russell had to say. Um, and I want to add a little more perspective to um, Councillor Nolan's history. I have a real sense of deja vu here because almost four years ago to the day um, the Broadband Task Force presented its findings to this Committee. Um, at the time we were told the City was working on an RFP. We've been told that for months and that the City would be coming to the Council for an appropriation. That never happened um, and it took actually years to unwind um, what did occur. Um, this delay has had real world impact not so much on Municipal Broadband but in terms of digital equity. Um, one of the Municipal Broadband Task Force findings was to do work on digital equity but because the City just simply stopped working on these it was relatively unprepared when the pandemic hit and everything went online. Um, that's um, that's really inexcusable and the City's pace on these issues um, you know has had impact on its citizens and on the less fortunate those who can't afford um, Broadband. I recognize that the Council appropriated \$50,000 for Digital Equity issues and I certainly would like to know the status of that expenditure, how many people have been connected, etc. I've seen no reports back on that. Um, I will also note that coincidentally today the Benton Institute for Broadband and Society um, published a report called Public Infrastructure Private Service: A Shared Risk Partnership Model for the 21st Century Broadband Infrastructure. Um, two of the co-authors are Joanne Hovis and David Talbot, folks who should be known to City staff because the City is employing them as consultants um, in the Digital Equity, um, Study. This really ratifies the model that the Task Force was talking about, um, and that Roy mentioned. That the City should own and control the infrastructure and rely on private partners to provide the retail service. Um, we were four years ahead of this report, which is, you know, um, promoting this new model. It's not new to us. It's the model that we've been trying to get the City to embrace for four years. It seems disappointing um, to me, um, at the very least that we still don't have an RFP to review. We don't know what the City is doing. Um, last week was Digital Inclusion Week. Um, you would think that if the City was in the middle of a Digital Equity and Inclusion Study, it might have actually said something about it on its website or might have used that as a, a time to bring focus on the issue. But I haven't seen anything. I mean, this is um, you know, I'm fortunate that I can afford a Broadband, Broadband server so I can participate um, you know in this Meeting without problems. Others can't. Really let's just fix this. Thank you.

**Patricia M. Nolan:** Thank you, Saul Tannenbaum. If you and any other speaker who has spoken, if they could send their comments to the Clerk in the Council, we can make them a formal part of the record of the Meeting. That would be really, really helpful. Uh, next speaker is Christopher Schmidt, followed by Phyllis Brett-Holtz.

**Christopher Schmidt:** Thank you very much, Christopher Schmidt of 17 Laurel Street. Uh, thank you to the City Manager for moving forward on this and to the

Committee for holding this hearing. Um, from the RFP, I think that there are several things that are really important for us to make sure of. One is to uh, really have a good idea of what it would cost to build a full Citywide Municipal Broadband network that includes our residences and commercial buildings. Um, I think that when we look at the amount of money that's spent by, you know, folks in Cambridge on Internet via Comcast today, we, we probably have a sense that, um, you know, residents and businesses in Cambridge are spending in the \$40 to \$50 million a year range uh, on their service. Um, understanding what the cost is relative to that to build out an alternative network is important. Uh, I think Roy's comments earlier called out some of the other, you know, important financial issues, take rate, etc. But I really uh, want to make sure that whatever we do um, has a real concrete look at what those costs are, including, um, you know, working with the electrical department to access polling conduit information. Uh, you know, working with technical advisors to talk about, you know, where you do drops, how you distribute this, because I really think that's important when you're looking at, at a utility. Um, two I do want to make sure that the RFP leaves the door open uh, to not attach cost to the necessarily day-to-day operations of, of such a network um, or, or focus heavily on that uh, but rather take a more broad perspective look at what the options are for operationalizing a network. Um, you know it, it, it- I think a lot of people when they hear Municipal Broadband, they think like Citywide City-run fiber and feel uncomfortable with that. But that really shouldn't be our focus. Um, our focus should be on, um, you know, treating this as a utility in the same way that uh, you can have your electricity generation and delivery separate. we could do the same thing in Cambridge. So making sure the RFP can include that , that relative information. Um, third is understanding, of course, what people are paying today. Uh, and especially I think businesses have to pay a premium for their Internet service uh, because Comcast charges a premium for it and, and have a real opportunity for us to improve that. Obviously, our institutional partners, MIT, you know, Harvard are not going to be uh, taking up Municipal Broadband um, from the City. But if you look at small businesses, whether it's, you know, Central Square, Cambridge Street or, or anything else like that, I've heard again and again that these folks are paying, you know, not just \$100 a month, but thousands of dollars a month uh, for Internet access that really could be provided much more cost effectively than that. So um, making sure that we include that uh, and, and look to what services those folks can provide. Um, another important thing for us to be looking at and thinking about is um, uh, when we- when we look at uh, Comcast. One of the major things that I hear from residents over and over again is the you know, but I still want my cable TV and understanding what our options are for models. I know that most Municipal Broadband networks focus heavily on Internet and not on cable TV service. But I also know that um, you know, even in the modern era, especially many of our older residents depend heavily on uh, TV and we do need to consider that within the RFP. So um, I hope as we look forward we really do have a focus on the technical costs of, of building such a network. Uh, the the response rate from you know users of Cambridge, users of Internet of Cambridge. What are they paying today? What would cause them to switch? Um, and not just you know look at



Comcast's website where the rates don't match people's actual lived experience. And, and third is, you know how- what services do we need to provide in order to be a compelling alternative uh, for folks. Um, everything I've seen seems to suggest that Municipal Broadband is a- is a functional you know way to move forward. Uh, you know we've seen 700 cities across the country build um, you know various components of partial or City-Wide Municipal Broadband Networks. Uh, I think that Cambridge is behind on this and I think that we should move forward. But I, I really want to have the data to understand that so we can all talk about this uh, and not kind of make up numbers going forward as has happened again and again in this conversation over the past um, four years. Uh, uh, there's no reasonable estimate that says a Municipal Broadband network would cost a billion dollars for Cambridge to build um, counter to claims in City Council earlier this year. And I'd really like to have numbers that that don't say a billion dollars because if it does say that I, I frankly won't believe it. So I'm looking forward to seeing the RFP understanding what's in it and, and uh, seeing us move forward. Thank you very much.

**Patricia M. Nolan:** Thank you. Uh, next speaker is Phyllis Brett-Holtz and that will be the end of the speakers who have signed up.

**Phyllis Brett-Holtz:** Can you hear me? Hello?

**Patricia M. Nolan:** Yes, we can. Go ahead Phyllis.

**Phyllis Brett-Holtz:** Okay. So, um, uh, my name is Phyllis Brett-Holtz. I live at 65 Antrim Street. Um, I can only support everything that has been said so far. My biggest concern is that this is a social justice issue. As someone who taught at the high school for almost 30 years, knowing what families are struggling with right now to maintain um, some kind of sanity for their children, for their own. So both seniors and young people um, who don't have access because they can't afford it um, is just completely unethical in a time when families are so dependent, particularly when their children are learning remotely. And for seniors, as the previous speaker spoke about the um, need for uh, Broadband for seniors. So um, I'm just speaking in terms of a social justice issue and I strongly support the City Manager um, going forward and the City Council going forward with this. And I'm optimistic that it may happen soon. So thank you very much for this opportunity to speak.

**Patricia M. Nolan:** Thank you Phyllis Brett-Holtz. And again, if you have your comments in written form and can email them to the City Clerk, that would be helpful. That's the end of uh, the speakers right now. So what I'd like to do is go to the City Manager who will open up um, the remarks from, from the City...

**Madam Clerk:** {Inaudible} Robert Beltram {Inaudible}.

**Patricia M. Nolan:** Oh, is Robert Beltram on since he had signed up and we skipped. Okay. um, thank you. So I believe the City Manager's on the call and he will introduce the City staff and get us started with this conversation.

**Louis A. DePasquale:** Thank you. Good afternoon and I'm looking forward to today's discussion regarding Municipal Broadband. I'm joined with our Chief Information Officer Pat McCormick and our Director of Communications Lee Gianetti. Pat and Lee have been involved with the City's Broadband efforts for a number of years. Lee is a member of the City Manager's Office and Pat is a member and former Broadband Task Force member. He's now the City's CIO. Pat and Lee are leading the City's digital equity initiatives. They are leading our Broadband efforts moving forward. I want to thank Committee Chair Councillor Nolan and the Vice Mayor for organizing this Meeting. In June, based on the Council feedback, I committed to funding the next phase of the Broadband feasibility study with an appropriation in the fall. Today, I hope that we'll be able to engage in a meaningful discussion regarding the goals for our next steps in the Council's shared expectations. This will assist us in finishing scope of work. As you are aware of my doubts regarding the sustainability and fiscal prudence of the City exploring a Municipal Broadband system, and given that we are in the middle of a pandemic, the potential costs are concerning to me. However, I want to be clear that I am committed, like the City Council, to efforts that will help us address digital divide issues in Cambridge. Lee and Pat are working in the IRFP for the next steps in our Municipal Broadband feasibility work. And they are working with our consultants to conclude our digital equity. {Inaudible} be able to prioritize a solution that primarily addresses the needs of the most vulnerable residents. There are numerous issues and uncertainties that need to be worked out for us to have a common understanding of the impact a Municipal Broadband system will have on both the finances of the City and the digital equity issues affecting our residents. Hope that we can collaboratively define goals and expectations for our upcoming Municipal Broadband efforts. The City Council will support efforts and approaches that prioritize the needs of residents who are impacted by digital divide. I look forward to today's discussions and I will now turn it over to Lee Gianetti. Thank you.

**Lee Gianetti:** Uh, thank you Mr. Manager and thank you Madam Chair for calling this Meeting. I'm looking forward uh, to today's discussion. As you know we've been working on a scope of work for the next steps in our Broadband work. Uh, but before I give a quick overview of how we're thinking about structuring our analysis, I think it would be helpful for Pat McCormick to give a brief overview and summary of the Broadband Task Force's recommendation and key questions that uh, they believe should be included in the next phase of our efforts. Following Pat's remarks, I can give you an update on how we're thinking about approaching uh, the scope of work for an RFP. So with that, I'll turn it over to Pat.

**Pat McCormick:** Uh, thank you, Lee. Thank you, Mr. City Manager uh, and the Chair uh, and members of the Council and the public. Um, I'm really excited to be uh, here speaking about this topic. Uh, as the City Manager said, I well, I've only been uh, working for the City since mid-April. Um, I was a member of the Broadband Task Force for the City for the entire two years um, that we worked together. Um, and um, I have been on a couple of other Broadband Task Forces in other communities and I've worked on Broadband Projects um, around the US and

in other countries as well. It's something that's near and dear to my heart and I'm really excited to be part of this effort. Um, so I'll just say a few things so that we can um, have sufficient time for, for questions and further discussion. One is for, for those who are familiar with the Task Force's recommendation, um, it focuses on a few things. One is um, an enormous challenge uh, for, for Broadband studies, which is to be focused enough to get really useful information. And I think some of the comments from the public today uh, zeroed right in on that. And I, I expect that many members of the Council are familiar with the recommendation. The initial study by uh, Tilson um, was really quite good, but it was very broad um, and wide, and thus it didn't have the level of detail we needed to understand that the cost and benefits, the trade-offs that would be um, part of a Municipal Broadband Project, whatever uh, the business model, um, whatever the technology mix um, and um, whatever approach was used. Um, so the Task Force recommendation was fairly specific in the analysis um, so that we could- we could find something very useful and very concrete in terms of the cost. Um, another couple things that I'd like to touch on. One is uh, Digital Equity which um, was indeed found by the Task Force to be the most important priority for the City. That is to say to address those gaps in connectivity um, to address affordability um, to ensure that the access is, is there for all of our residents and that some residents are really um, suffering the uh, uh, the gaps of poor or no Internet um, much worse than others. The Digital Equity study that's been underway um, will give us a lot of terrific information on that. And while I understand um, there may be some frustration that that study has taken longer than anticipated due to COVID. Um, I would like to add that I believe the results were going to be much more valuable. COVID really has been a global case study uh, for, for those of us who have been working around Broadband and Internet access for, for decades. Uh, we knew those gaps existed in the case of the City of Cambridge. We actually had some, some pretty decent data about the gaps and communities that weren't well served. But under uh, what we've all experienced in COVID, whether it's student uh, aged children needing to do their homework with Chromebooks, um, whether it's uh, older residents wanting to connect with their families in other states or people of um, all kinds of work needing to work remotely. Um, people have been using high bandwidth applications to accomplish these things and thus people are much more aware of where the gaps lie in not only speed but quality of service uh, and of course affordability. That means that while um, the study on Digital Equity for the City had to be changed in some ways because it initially was going to have in person focus groups and interviews. Um, we're able to zero in on with our consultants um, a much greater detail on exactly what kind of connectivity issues, what kinds of gaps in having devices or having uh, tech literacy to use the devices and connectivity for various purposes. So I really feel that we're- we will all benefit from having much more detail on our least well served uh, members of our community and how to address that. Um, I do want to say Digital Equity and Municipal Broadband um, are two important topics for us to look at. They're not one in the same and I know most people realize this, but a Municipal Broadband network can have many, many benefits and we will be able to understand them better as well as the cost when

that study occurs. It, it is not necessarily the fastest route to Digital Equity, uh, nor is it necessarily going to fully address Digital Equity unless that's part of the mandate. Um, so again, that was seen by the Task Force six uh, through four years ago as being a priority. I know it's a priority today. I'm proud that the City has, has done so much work and that we're going to have a better idea of exactly where digital equity uh, needs to be addressed sooner than later. I'll just say a few more things about the complexity of Broadband and why these studies need to be so focused. And, and by the way, we did hear some of these points from uh, members of the public, so I'm highly appreciative of that. Um, one is knowing exactly what benefits um, we're looking to achieve through a Municipal Broadband Network. Um, what is the purpose? What are the priorities such as digital equity such as better service and so on? Um, another dimension is around the business models and there are many to choose from. So I also would recommend that we have to narrow that down and not expect a single study to explore uh, many business models. Um, the technology mix always comes up too. Um, there are always uh, um, opinions that wireless for example is getting better and it is and that it may um, it, it, it may mitigate the need for high speed fiber connectivity. Um, again we probably want to zero in on something very specific as the Task Force recommended and as we heard from um, some folks today, such as perhaps fiber to the home. Um, uh, l- lastly, we want to incorporate what are the principles that matter most to Cambridge. Some of these principles are not being adhered to by private providers due to the current regulatory environment and other reasons. So one we already heard about today was Net Neutrality. Um, another could be Open Access, particularly if it were a, a wholesale network with multiple providers on it. Um, and also types of services that are- that are necessary. Um, needless to say, the study needs to look at the cost and financing as was already mentioned today, understanding that it's a major capital investment as well as a major operating cost, um, and it's not something that um, most cities are accustomed to doing. Um, and, uh, lastly, what is the revenue model? How is it sustainable? And for example, um, if we are looking to achieve better service to uh, to provide to members of the community uh, who cannot afford current costs that, that may or may not mean costs being the same or higher for, for other residents and businesses in the City. Again, depending on what um, the study will find. Um, so again, I'm, I'm, uh, I'm excited to, to be here with the City uh, picking up where the Task Force uh, left off. I think it's a great opportunity. I think that the Digital Equity Study will really inform our focus as well as the, the um, other topics that we mentioned in terms of keeping the study uh, narrowly focused so that we can get a very useful uh, deliverable and I'll, I'll stop there for the moment. Thank you.

**Lee Gianetti:** Great thanks uh, Pat and as Pat mentioned um, for the next steps in this process um, we're looking to conduct a focused analysis regarding Municipal Broadband. Uh, the analysis will incorporate the goals of the Task Force and really the policy goals regarding Broadband that the Council has adopted. Uh, and these findings that are beginning to emerge from the Digital Equity Study will also uh, inform our work. Um, we will be seeking an analysis of the costs, the benefits, the risks of a Municipal Broadband system so as to allow the City to be

able to make informed decisions moving forward. Um, I greatly appreciate um, Mr. Russell's comments uh, during Public Comment in terms of you know what is the goal? That really is a critical piece um, to moving forward having clarity around that. Um, we will be seeking to collect sufficient quantitative information and other information that will allow the City to determine uh, whether and how to pursue an appropriate Municipal Broadband network that could meet uh, the City's goals. I will be seeking a model for how Cambridge can deal with digital inclusiveness to achieve the goals of both the Council and the Task Force. Uh, there'll need to be significant community outreach so that we can fully understand the needs of the community and interest in the proposed solution. Um, I- this is something that came up very much during the Broadband Task Force process in terms of you know how, how do we further engage the community in this process. Specific tasks that we'll be seeking include a needs gaps analysis, an evaluation of network solution, a financial um, feasibility analysis and funding model, a detailed marketing analysis. Um, these will be critically important for us to take a look at to see whether or not a solution is viable and would we move on to the next step, uh, which would then involve developing the overall parameters for a system to help the City assess capital and operating costs, the interconnections, and insurance bandwidth, legal requirements and other costs of operating a network. Uh, and the City's ability to really provide operational uh, support. A comment made by one of the members of the Broadband Task Force uh, has really stuck in my head over the past few years and it really was we don't have an engineering problem. We have a goal problem. And it really comes down to what is it that we're trying to um, trying to do and what do we- what problem are we trying to solve? So as we look at finalizing um, a scope of work for an RFP, it would be helpful to have a little bit more clarity from the Council on what your expectations are. Uh, there have been various approaches and goals described in different meetings and um, as I said, it would be helpful to understand from the Council perspective, what are your goals? What are the acceptable parameters um, for analysis? We heard a few people during Public Comment really talk about, you know, ownership of a system, control, you know, at a local level. What does that actually mean so that we can um, make sure that we're looking at the right problem. So Madam Chair, I hope today we can have a high-level conversation with the Council regarding uh, various Broadband approaches. What types of background information that we might be able to provide the Council and at our next meeting we can come back with um, a specific proposal and provide an update on what we've learned through the data gathered with the Digital Equity Study. Pretty much our data gathering phase is completed and our consultants are working um, on now the recommendation part of uh, the report and we'd be happy to give you um, a taste of what some of those findings have um, some of the findings that have surfaced. So with that um, I will turn it back over to you. I look forward to figuring out um, our approach forward and discussing uh, the Council's goals with you uh, today. Thank you.

**Patricia M. Nolan:** Thank you uh, to all the City staff, um, the City Manager and our fabulous IT Director. It's helpful you were on the Municipal Broadband Task Force as well as Mr. Gianetti. Um, I want to um, ask if anyone else has signed up

for Public Comment while we were... so I will entertain a Motion to close Public Comment and then we can move to the Council. So moved by Councillor Carlone. Please take the roll.

**Madam Clerk:** On closing Public Comment. Councillor Nolan.

**Patricia M. Nolan:** Yes.

**Madam Clerk:** Councillor Carlone.

**Dennis J. Carlone:** Yes.

**Madam Clerk:** Vice Mayor Mallon.

**Alanna M. Mallon:** Yes.

**Madam Clerk:** Councillor McGovern.

**Marc McGovern:** Yes.

**Madam Clerk:** Councillor Zondervan.

**Quinton Zondervan:** Yes.

**Madam Clerk:** And Public Comment is closed.

**Patricia M. Nolan:** Thank you. And I really do appreciate the City moving forward. And I also want to hold the balance of the frustration of all of us who have been waiting for this for years. I understand there's always a gazillion things on your plate. But again, we are so far behind on many of these issues, as was mentioned, I would have loved us to already have this in place, particularly when, when the pandemic hit, which since the Broadband completed its work four years ago, if it had been feasible, we literally could be doing that now. And as was mentioned in Public Comment, the fact that... I think what I heard was that 700 cities have built networks and now we're kind of behind the curve instead of ahead. That being said, I want to use that as us- pushing us to be uh, diligent and um, put our urgency into making sure that we move forward um, as fast as we can. So I will start with um, uh, reminding folks that what- this Meeting to be productive, the, the City is in the process of developing the scope of services that they want to hear from us on what the vision is that we have. What are the goals that we have, to and give input right now, with the expectation within, I'm hoping it's a turnaround of just a couple weeks, we will then come back and have a more specific set of scope of services and um, ideas to uh, to talk about. So I will start with any colleagues who are remote. Uh, raise your hand in Public Comment. Councillor Zondervan has um, put up his hand first.

**Quinton Zondervan:** Thank you Madam Chair and through you my thanks to the City Manager and staff um,, I share all the frustrations and I will refrain from repeating them. I'm just really glad we are finally having this conversation. Um, as City Manager and staff know I put in that Policy Order last term detailing some of the uh, priorities that I think we should look at. And one of the main ones was a digital equity study which, um, the City has been engaged in and, and I guess

we're um, still not able to to have results from that study. But I look forward to um, receiving those um, to help inform our our thinking going forward. Um, I was really struck by some of the earlier conversations because we seem to be operating in this um, model where we assume I think that um, this has to be fee for service that that the only way to make this work is that we charge people for their bandwidth. And I think there's a lot of reasons to, to really question that. And one of the simplest examples to, to look at is our- is our streets. We do not charge people to drive on our streets um, based on how much they drive or how fast they drive or what kind of car they drive. Um, and that facilitates all the commerce and activity that, that happens in our City. So the Broadband concept is really the digital roads of the 21st century and if we limit our thinking to we have to charge people for service, um, that doesn't um, really allow us to fully explore the possibilities, particularly around equity. So just as anyone who moves to Cambridge can reasonably assume that they have access to our roads and our sidewalks. Um, similarly, why couldn't we have a model where people who moved to Cambridge can reasonably assume that they will have access to the Internet? That doesn't mean it's free, of course, our roads are not free either, but we pay for them uh, through taxes and various means. And similarly, we could pay for universal Broadband through um, taxes or or other revenue sources. It does not have to be a fee for service. And certainly we could charge fees to um, corporations and, and other um, large users. But, but in terms of residents who are using this basic infrastructure, um, we should at least explore the possibility that it does not have to be a fee for service model and, and that creates the opportunity to, to really have a true digital equity where it is not based on the person's income as to what level of service they have when they access the Municipal Broadband system. Um, and then the other uh, question that we asked in the in the Policy Order last term what around infrastructure and, and putting infrastructure in our roads as we rebuilt them. And what we see all the time is that the utilities Verizon and, and Comcast to some extent as well are um, able to put in a lot of infrastructure under our roads when we are doing the road. But and, and the City apparently also owns and operates some Broadband infrastructure under our streets. But what we have not been willing to do or explore is to put in uh, Municipal Broadband infrastructure at the same time. And and again, you know the- there is no technology that we are aware of that can move data faster than the speed of light. So putting in fiber optics in our- in our streets, um, is basically a no-lose proposition. And, and no matter how we end up in terms of a business model and how we end up providing services over that infrastructure, it is always going to be uh, useful to us. So we should really look at even as we study all these business models and marketing plans and all these details that we have to figure out, can we begin to put in place this infrastructure so that when we finally decide how we want to run it or maybe we even have different ways to run it um, at the same time, that we already have that fiber in place under our streets so that we're not delaying the implementation even further um, while we deliberate. So those are a couple of my initial comments and I'm sure I'll have much more to say later. Thank you, Madam Chair.

**Patricia M. Nolan:** Thank you. Did you expect an answer or you're making those comments so that the staff can take those under advisement?

**Quinton Zondervan:** Thank you. Those are- those are just comments that are not really questions.

**Patricia M. Nolan:** Okay. Thank you. Vice Mayor Mallon, followed by Councillor McGovern. Vice Mayor Mallon.

**Alanna M. Mallon:** Thank you, Madam Chair through you um, to the City Staff. I had a couple of questions around the Digital Equity Study as Mr. Gianetti was talking about the data gathering stage being done and the consultants were working on the final report and that there were some preliminary findings from the Digital Equi-Equity Study that he felt like he could share with us today before the final report is shared. Um, I'm wondering if actually this would be a great time to do that sharing uh, if you feel ready Mr. Giannetti and also when we might expect the um, the full study from the Digital Equity Study to be presented and prepared for the Council to uh, look at.

**Lee Gianetti:** Sure. Thank you. Through you Madam Chair to the um, Vice Mayor. I was saying for the next meeting that we have we'd be happy to give a presentation regarding the findings from uh, the Digital Electricity Study and it may even be something we can have um, our consultants uh, participate in that and really lay out what it is you know as part of our data gathering, we've done a Citywide mail survey. We've done a targeted randomized mail surveys. The CHA. There's been stakeholder interviews with both experts, with providers, with service groups, with residents on that- they're building a huge picture of what is the actual problem and needs that are emerging here? I can tell you um, that we see a difference in the surveys, you know, which is probably not surprising between the City-wide survey and the CHA. um, we know that there's a bigger digital divide issue in the CHA with families that are there and this is where I think it will help us inform as we put together a scope for um, the RFP. How do we potentially prioritize that if we know that there's an area that we can make a direct impact on now? How do we actually accelerate some of that um, type of work and really concentrate efforts on, on that? So my comments regarding the um, results of the Digital Study is really to have a more thoughtful conversation at um, the next meeting, and I'm happy to have our consultants be a part of that. And in some ways they'll be admitted- they'll be a check in on how the study is actually going, and we expect that they'll have the report uh, wrapped up um, probably by the end of November, early December. It's just taken a little bit longer. We just received the CHI results uh, about two weeks ago. Everything just seems to be taking um, longer to get scheduled and uh, to get completed with everything going on with the pandemic.

**Alanna M. Mallon:** Thank you, Madam Chair, through you to Mr. Giannetti. Um, it seemed like the Chair had indicated that she wanted to have the next meeting about a month from now. Do you think that the consultants would be ready to come to the table at that point to share their initial findings and thoughts?



**Lee Gianetti:** Yeah, I think um, from the finding perspective we'll, we'll- that that's not a heavy lift at all because it's really they're working on the recommendation part of uh, the study right now. So the findings are the findings and they'll be able to at least say this is what we've discovered here. Here's the information that we have in terms of um, the status that exists in the City. And then as part of the final report, we'll have the recommendations in terms of here are strategic approaches that um, the City should con- should consider to actually address those issues. I don't know if you have anything further you want to chime in on that.

**Pat McCormick:** No, I agree.

**Alanna M. Mallon:** Okay, and thank you Madam Chair through you uh, to Mr. McCormick. I, I really appreciated what you said about um, the Digital Equity Study happening a really inopportune but opportune time to really think about how digital equity can affect and does affect our community during a pandemic when everybody is online working from home, studying remotely, connecting with families online and that you know uh, the conversation that Chair Nolan and Mr. Gianetti and I had was around prioritizing low-income families because I think we have seen during this COVID crisis that the residents in our community that have been most hard hit on every factor whether it's housing, disparate medical outcomes, digital equity, our low-income residents are and some of our black and brown residents have been hit disproportionately hard at every level. And so for me, you know, what are the goals? What are the scope? For me, it's about connecting and ensuring that our most vulnerable residents have access to high quality, high speed Internet at a very, very low cost to no cost. So I you know I'm sure other Councillors are going to weigh in on on their goals for um, a scope of service and RFP. But I want to just say you know right now and here while we're having this conversation that that's where my heart is in this moment. Um, we need to seize every opportunity that COVID has laid bare during this pandemic about where all the opportunities are for us to create policy and create programs to uplift our most vulnerable and those who are struggling. And that really for me includes our students first and foremost. Um, we've always known that there was digital equity problems in our City. We haven't known what to do about them. Uh, and when COVID hit and our schools closed two days later, all of our kids had Chromebooks and and hotspots. So I think it's true that we don't have um, you know, we, we have the resources. I don't remember the exact quote from the Broadband Task Force around, you know, we don't have a- we don't have a money problem. We have a goals problem, right? We, we got to figure out what our goals are and how to meet them, particularly for our students, because we're going to have a digital equity issue after this pandemic. We had one way before it started. So that would be my priority and making sure that they are at the top of the list um, for, for what we're trying to do here. So I'll yield the floor. Thank you, Madam Chair.

**Patricia M. Nolan:** Thank you, Vice Mayor Mallon. Councillor McGovern, followed by Councillor Carlone.

**Marc McGovern:** Thank you, Madam Chair. Um, so um, I appreciate the framing of this because I, I had some of the issues that were brought up or sort of some of the questions that I had as well, um, particularly around making sure we identify what the goal is. And Mr. McCormick, if I misheard you, um, I apologize and correct me, but one of the things you said, which I was going to ask about or mention is that, you know, Municipal Broadband is a way that we can address the digital divide, but it's not necessarily the only way. And um, those two things are, you know, maybe related, but they're not necessarily the same. And so um, I think that we, we need to sort of figure out what um, and it may be both goals, right? And, and uh, if we were to start moving- if we decided today to move towards Municipal Broadband, you would be talking many years, I think, before um, anything would be up and running. And we know, obviously, as the Vice Mayor pointed out and others, you know that there are, you know, people struggling right now today. Um, and so this may be a two tiered kind of conversation or plan, where we look at ways in which we can, um, you know, address the digital divide that, that isn't about Municipal Broadband as we move forward with Municipal Broadband. Uh, if that's indeed what we decide to do. Um, so and when we think, I guess in terms of moving forward and thinking about this, I would like to have a sort of some sense of a timeline of what we would be talking about. Um, and then what we would be doing in the meantime, um, to make sure that people have access uh, you know, as soon as possible. Um, you know, I also think that it's the in terms of the Municipal piece, you know, we further defining what the goals of that- of a Municipal Broadband network would be. We heard a couple folks talk about, we've heard many in the past talk about, um, you know, we don't having just Comcast in the City is not desirable and for a whole host of reasons. And people want another option. Um, you know, it does... if that is the goal, then Municipal Broadband may be that other option. It may be something else. And I know we've been unable to find another provider in Cambridge, but I'm not quite sure when the last time we, we put out a request from one. Um, or is it that, you know, we really feel like having the City manage this as a utility is something that is um, you know, better in the long run for everybody. So again, just further refining what the actual goal is so that we can make sure that we are um, you know, moving in the right direction. And for me, it's how do we ensure that we have a reliable, high speed, cost efficient service that everyone in the City can afford and have access to. And so if that's Municipal Broadband, great, sign me up. If that's something else that we can do faster and more economically and gets us to the same place, then I'd be open to that um, as well. So that, that's my goal is how do we have? How do we have a service that um, is reliable is uh, something that everyone can access that is affordable um, and, and one that that uh, you know provides the type of bandwidth that that people need um, you know, not just today but moving forward into the future. So uh, that's all I have to say for now, Madam Chair. Um, I guess there wasn't really a question there, but uh, you got my thoughts anyway. Thank you.

**Patricia M. Nolan:** Thank you, Councillor McGovern. And I want to note you've been a stalwart supporter of this, including bringing Senator Markey into the conversation to talk about the way that he had many, many years ago, tried to

expand uh, Broadband access, particularly for the most vulnerable. So I appreciate that. Even if you didn't have a question, I know you've been working on this for a long time, but Councillor Carlone and then Mayor Siddiqui.

**Dennis J. Carlone:** Thank you, Madam Chair, and I thank uh, my colleagues for their comments and for the presentation. Um, it strikes me that there's a great amount of study that's happened and there are some excellent people who spoke today, both the public and City staff with great input and knowledge um, that clearly we need to build on faster. Um, as the Vice Mayor and Councillor McGovern uh, said, um, m- my goal is I, I view government as the vehicle to serve people who have nobody else serving them and needs that can't be met in other ways and an affordable price. And when I think of this company that's using our system today, um, the cost has greatly outpaced uh, inflation to people. Um, and Comcast is very profitable. Um, they bought NBC. They built the skyscraper. I think that's great. They are a powerhouse in entertainment now. But that says something. That says that this is a highly profitable business. And as a City, that tells me that we could do it for less or invest profits in other public services. And that seems very critical to me. Um, I think as I said in the beginning, I think there's enormous information already that perhaps hasn't been fully shared. Uh, I agree with everyone that this could have been done a lot sooner moving forward. Um, I remember in conversations in 2014 and '15 about con- rebuilding the roads in West Cambridge and not putting in empty conduit for future Broadband just seemed absolutely stubbornly ignorant. It turns out that the cost of putting in the conduit is 90% of the cost versus the 10% of the cable. So if we come back, assuming we will, and we want to put conduit in, we'll be paying the 100% instead of f- five years ago putting in conduit for some future use and um, that just distresses me. That's a complete lack of planning and I have no doubt that streets are full of utilities, having studied uh, a couple of streets for different reasons. But there's always room for another conduit. And where there isn't room, you wait until this project moves forward, but you put in what you can put in and I would now consider the Port as an example of an area without- where we're going to rebuild much of the roads um, and the storm system that we should be putting in conduit for a future system. Maybe it's not Broadband as Councillor McGovern hinted at. Maybe it's another system. But back in 2014 we were talking, talking about well maybe Broadband goes into the sewer pipes. Well, that hasn't happened um, to date, so we have to get moving on this. So I'll just end with the key point and that is helping those who need it the most. And by the way, I include seniors who we seem to care a great deal about, who don't have all the funds to pay increased taxes. They're in this ballpark too. They're the ones that don't have cable or don't even understand um, using uh, the Internet as well as some of us. So it's not just people in need on the low income side. It's people in need who have houses who can't afford to pay for this service. Uh, Santa Monica is a huge success. I think they put their system in 15 to 20 years ago. Um, we're light years behind. Thank you, Madam Chair.

**Pat McCormick:** Thank you, Council- thank you, Councillor Carlone and Mayor Siddiqui.

**Sumbul Siddiqui:** I don't have much more to add than my colleagues. I think um, one thing that I was thinking about, maybe this can be reported back in the future, was, uh, you know, I know that the Council allocated \$50,000 um, in the interim for students and those who didn't have- who had hotspots. We were offering uh, {Inaudible} coupon codes and so knowing how many families have utilized that any of that data would be great to share um, at the next meeting. I know you know you and Steve Smith over at the school sides probably have been chatting but um, I think that'd be helpful to understand as well who's utilized that. Um, how many families were eligible, took part in that and many of these families also live in uh, they live in CHA housing and other uh, affordable housing where they may not have access. So I wanted to bring that up based on Vice Mayor's point. Thank you.

**Patricia M. Nolan:** Thank you. Did you want a response now or you want to bring that up for...?

**Sumbul Siddiqui:** We can just get that data for later. Um, thanks.

**Patricia M. Nolan:** Thank you. Um, before I, I go back around Vice Mayor Mallon and then Councillor Zondervan, I wanted to- I'll make a couple of points myself. I'm very interested and excited to read the Benton report, which was referenced in Public Comment, which I can send around to the Council. The title is um, is let's see. It's, it's about public private partnerships in 2020 referencing the pandemic and how it is that this is now the new- one of the many models that could be used in Municipal Broadband. But I hadn't known which was mentioned in Public Comment and several of the authors are some of the people doing um, our Digital Equity Study. And it talks about the emerging model of taking advantage of what the public does well and what the private sector does well. So I'm very interested and hopeful uh, perhaps the City can reference that if that they are looking at that. And a companion question to that is whether the City, um, uh, Mr. McCormick and Gianetti, if you sat down with Upgrade Cambridge and or brought back the Task Force as you develop the scope of services, it seems like we have people in the community have spent a lot of time on this. Ih, and and if they've been involved in and helping think through the scope of services as well.

**Lee Gianetti:** Um, Madam Chair, we have not engaged members of the community yet, but I can talk to Pat and we can uh, figure out what it is that we can do. I, I've always appreciated um, the, the input and the information that Upgrade Cambridge has put out and in particular um, I consider myself extremely lucky to have been able to work with the Broadband Task Force. It was an incredibly thoughtful group of individuals that were passionate about the topic, but also digital equity and really looking forward facing. Um, so Pat and I can talk and we can see how we may be able to uh, engage these folks at appropriate steps in the development phase. Um, the way Mr. Russell was outlining uh, some of the high goals and expectations uh, from Upgrade Cambridge, I think is aligned um, with the areas that we've been looking at.

**Patricia M. Nolan:** I, I think now's the time since we're in the middle of developing the scope of services. And again, I think we all believe in building on

what has already been done. That work has already been done. Those people were engaged, they're passionate, they volunteered their time. So it'd be great and particularly Upgrade Cambridge basically managed to galvanize thousands and thousands of people across the City. So I hope that we, we can reach out to them in the near future uh, so that we can have this truly be an inclusive process. Um, I will say my goal is to provide- my, my dream would be to do what Loveland, Colorado has done, what Chattanooga has done, what um, Braintree is in the process of doing in Norwood, to really have a network across the entire City. And part of the reason I think it's important for us to consider that model is that the way we would pay for the access for the most vulnerable people, whether if, if Broadband or Comcast, as you know, has this Internet Essentials, it is not as good service as the rest of the, the network. It is affordable for um, low income families, but it is not as good. What my vision is, is that if we can build a network, I'm right now one of those families paying, I don't know, \$60 or \$70 a month just to have high speed Internet access because I finally had to realize DSL wasn't making it. If my paying that to the City can then subsidize a much better uh, Internet experience for the thousands of our residents who would otherwise have owned the only option of turning to Internet Essentials. I think that's the win-win for us all. And my hope is that the experience that I have at least read about in some of these other cities is that when they do it, they provided actually for less than the commercial uh, Internet uh, provider for better service and great reliability. So I would want us to ensure that the goal for us is to- my- if we can provide it better across the City with the aim of having true inclusion and equity. It means that various people might pay different amounts, but that everybody would, would get the higher quality service. So I'm hoping that's, um, in part of the discussion that people have been- have been talking about. I don't know the 700 cities that have some kind of network, but I know that there's a range of them. So how much outreach have we done to look at those models or will they be incorporated into the scope of services? And then I'll go to um, Vice Mayor Mallon and Councillor Zondervan.

**Alanna M. Mallon:** Chair Nolan?

**Patricia M. Nolan:** Yes, Vice Mayor Mallon.

**Alanna M. Mallon:** Were you awaiting a response or...?

**Patricia M. Nolan:** Yes, I, I had wanted to hear from uh, Mr. Giannetti, Mr. McCormick on are we including this best practice idea because I know there are cities in the country already providing for city-wide a network that enables them by basically leveraging people who are full pay Internet uh, users to then provide uh, access to uh, other citizens.

**Pat McCormick:** Sure. Um, Madam Chair, I can try to address that. Certainly we would be looking at different models. In fact, the study that the City already did with Tilson had case studies of different models. Um, and I would agree that the majority of Municipal Broadband networks um, are fee for service. I know Councillor Zondervan mentioned the idea of a tax-funded um, uh, networks which would be the exception and uh, very unusual. But you know, um, some versions

of that are out there. So I think in general the idea that if uh, many residents and businesses are willing to pay a similar price to what they pay now, and, of course, that would be borne out by the study for better service, then that would allow there to be room for some means tested or effort to have a more affordable service that is of um, equal quality. That is often a principle in some of these networks, whether they are municipally owned or public private partnerships. The idea that- and I would add that even from a technology perspective, if you have fiber to the home, um, there, there really isn't the same need to vary levels of service except artificially. Um, of course there's only so much Internet connectivity at the end of the pipes and there is a cost associated with that. But uh, but generally it is common to say you want people to have the same high level quality of service um, without getting into the weeds, often it is about a more symmetrical service. So a lot of the private providers have a higher download speed, which is us as consumers than they have upload speeds, which is us as creators. Um, so often that's another principle that is addressed and by saying all residents um, should more or less get the same excellent service as however it might be defined. Um, and that um, that you would- unless you have another means of paying for it, you would need sufficient revenue to balance off those subsidized services. You also will need, and this came up um, with um, Mr. Russell and I think Mr. Tannenbaum as well, uh, perhaps one other member of the public, you will need the take rate to be high enough um, to make it work. Uh, and without going off on too much of a tangent, one of the challenges here is that Municipal Broadband, and people have different opinions about this, is some version of a natural monopoly. There is nothing preventing another provider from coming into Cambridge. We do not have an exclusive arrangement with Comcast um, to, to build a network. It is the exception, not the rule where communities have competing networks, particularly of the same type cable or telephony. That is because there's a high cost associated with building a network and you can only divide that pie so many times to, to keep it profitable. So suffice to say, these are very important elements to a study uh, to understand the not only the cost, but the feasibility and, and the revenue models that would allow us to sustainably operate in both the capital investment and the ongoing operating costs. So, so that is indeed the challenge. And we would want to look at best practices. Thank you.

**Patricia M. Nolan:** Thank you Mr. McCormick. Uh, back to Vice Mayor Mallon and then Councillor Zondervan. And then Councillor Carlone. Go ahead.

**Alanna M. Mallon:** Thank you Madam Chair. Um, I just wanted to second um, your desire to have the City Staff meet with members of Upgrade Cambridge prior to our next meeting when we have a fully or a fleshed out RFP because I do think that there are some significant benefits to having this group weigh in on what an RFP uh, should look like, could look like, and should include around goals around um, a number of things that have come up. So I'm wondering if from this Meeting if we should have some sort of Order that the City Staff meets with members of the Upgrade Cambridge prior to our next meeting to ensure that the Task for- the Upgrade Cambridge and the Task Force are represented uh, on the RFP. So that was um, kind of my first thing is perhaps putting forward a Motion

uh, of that nature. The second thing was I had a question. Um, we didn't talk about small businesses. I know the Chair brought that up in her opening remarks that small businesses sometimes pay thousands of dollars a month for uh, Internet service. And I'm wondering in this Digital Equity Survey, did we do any outreach to small businesses or, or do we have some kind of data around uh, how much businesses are paying etc., that we are using that we could be using to look at an RFP.

**Pat McCormick:** Um, unless Mr. Giannetti wants to jump in, I, I will say and he can correct me if we're wrong if I'm wrong, but um, the Digital Equity Study did not look at business service. It was uh, it was residential.

**Lee Gianetti:** Yeah, that's correct.

**Alanna M. Mallon:** Do we have any- through the Chair to Mr. Giannetti. Do we have any data at all around small business Internet connectivity and costs, whether it's through the Economic Development Division of CDD or survey other, other retail studies surveys? Not sure.

**Lee Gianetti:** I don't know off the top of my head, but I'm happy to look into that. And if that is a gap area, we can um, talk with our consultants and see what, what is available that we may be able to uh, include. And I don't recall from our City-wide survey since it went to anyone that lived in the City, if there were any details back about uh, small business. We know there was a lot of questions related to how Internet particularly at home relates to their work. Um, and there were a number of people that, you know, either work at home, have their businesses at home. So we have some level of data on that. But um, let me talk with Community Development and our consultants um, on the small business piece.

**Alanna M. Mallon:** Thank you. And through you, Madam Chair, I- you know, we've been talking a lot about how small businesses have been hit very hard by the COVID pandemic um, and trying to ensure that we decrease their costs and their operating costs, you know, moving- now and moving forward as a way to keep and attract small businesses here in Cambridge and keep our local small business owners uh, you know, keep more money in their pockets. So any data and study information we have on costs for small businesses would be helpful. Uh, I know that we- thank you to the Mayor for bringing up the um, the information about Comcast and how we've been providing um, Comcast free of charge to our students for 12 months um, under a plan called Comcast Essentials um, and that we have been giving out coupon codes for our, our residents. So I agree that Municipal Broadband is not the quickest way to solve the digital equity problem, particularly for our students. However, this could be a bridge to get us there if the focus um, is on our low income families and particularly our low income seniors and students. My last point is around the um, Benton report. And thanks to the Chair and to the Public Comment um, for bringing up that this is uh, perhaps a new model or the best model to move forward with a public/private partnership of a Municipal Broadband. And I do wonder if we could be, you know, in our RFP having them explore um, a PPP model for moving forward. Uh, I, I was interested in- I'm looking forward to reading this report but I just wanted

to say that, that we might be wanting to consider that. So th- those are sort of my comments that I've been thinking about during this Committee hearing. And just to go back to my first point um, you know should we make a Motion to have the City team meet with Upgrade Cambridge around um, goals for the RFP prior to our next meeting so that they, they have their thoughts uh, articulated to the City staff when putting together a framework.

**Louis A. DePasquale:** Madam Chair, can I just jump in for one second?

**Patricia M. Nolan:** Sure.

**Louis A. DePasquale:** I just want to thank the Vice Mayor for that thought and I don't think you need an Order. We'll be happy to do it and we'll reach out to them as soon as possible. So thank you for the suggestion. We'll be happy to do it. That's okay with all of you. That makes sense.

**Patricia M. Nolan:** Thank you. Actually, thank you City Manager, and thank you once again Vice Mayor Mallon. I think that makes more sense just given the timing. It just makes sense to say yes, you're going to do it and because we may- we hopefully will be meeting within a few weeks and we don't need to. So we have- but thank you, Vice Mayor Mallon very much for, for remembering that and pushing that.

**Louis A. DePasquale:** Thank you.

**Patricia M. Nolan:** Is- and that's it Vice Mayor Mallon with your comments?

**Alanna M. Mallon:** Thank you. I yield the floor.

**Patricia M. Nolan:** Yes. And I also want to thank you for reminding us of the small businesses, particularly in this pandemic. It is critical. So many small businesses are now relying on the Internet in a way that they didn't before. It is a lifeline. And as we've heard over and over again through various Committee meetings you have done from Arts organizations to restaurants to small businesses, it has been such a struggle that the more that we can do again, this is a long term plan. We know we're not going to overnight be able to have Municipal Broadband, but it's certainly laid raw the uh, critical need for uh, a range of our uh, businesses and organizations needed this. small Um, Councillor Zondervan and then Councillor Carlone.

**Quinton Zondervan:** Thank you Madam Chair. I just want to respond a little bit too. Uh, some of the comments about and uh, thank you as well for the reminder small businesses. I think in general we can uh, consider them part of the residential um, customers in terms of uh, Broadband uh, in, in all of our discussions around Broadband and digital equity. Um, so you know it's been mentioned about other cities and, and Chattanooga and so forth and you know I've been studying this issue for a long time. And Mr. McCormick brought this out as well that in, in a sense, again, just like the roads, a Municipal Broadband system is kind of a natural monopoly because it doesn't make a lot of sense to have duplicate um, cables running under the streets competing with each other to move



the information. So you know, again, if we, if we stay stuck in this fee for service model, we're really limiting ourselves um, in terms of what we can achieve because a lot of these other places that, that we look at didn't have um, real access at all for the residents. And so by putting in a Municipal Broadband system, they were able to solve that problem and, and they essentially had guaranteed customers. But in Cambridge it's a much more complicated situation because as we know we do have Comcast and, and we can uh, all commiserate about about them but but they're here and they provide some level of Internet service. And then we have Verizon which provides a different uh, Internet service as well. And so if we only think about this problem as you know, can we provide a Municipal Broadband system that now has to compete uh, with Comcast and Verizon and, and potential other providers like Starry and so forth to acquire customers? Then it does become a much more difficult conversation in terms of balancing out revenues and, and making sure that you have enough wealthy consumers who are willing to pay a higher price so you can subsidize less wealthy consumers to have the same level of service. And, you know, I'm all for doing the studies, but, but I think we already kind of know the answer. And, and we've been dancing around that problem for a long time. And if we change the paradigm and we say, what if we did treat it more like the roads? And we put the infrastructure in place and it's taxpayer funded and everyone has equal access to it, uh, at least at the level of, of resident or small business. Then it opens up a lot more opportunity for us to ensure true equity of access because we're no longer dependent on being able to construct the revenue model that balances um, wealthy versus lower income consumers um, on the- on the network. We're basically saying everybody has access to it um, automatically just like a road and, and ultimately uh, no private company could really compete with that. And so we would essentially capture uh, all the- at least residential and small business customers and automatically. And, and in fact, we're already doing something very similar with our electricity supply. uh, that's another example. Now, of course, it's easier because we don't have to run wires everywhere. Um, and then we still have the, the large businesses that could pay us uh, to, to be essentially to be their provider or to be the provider of the underlying uh, fiber networks. And, and derive additional revenues from that. So, you know, I would certainly again encourage the team and I was- I was encouraged by Mr. McCormick's statements to really look at, you know, doesn't have to be fee for service, is that the only option? Because if, if we limit ourselves that way, uh, we may well talk ourselves out of it again. And, and forego the opportunity to really provide an equitable and, and 21st century worthy solution to our residents and small businesses. Um, and you know, in response to some of the, the questions that are still being asked, you know, we've, we've known about a digital divide for, for many years in the City. I remember going to an event organized by then Mayor Henrietta Davis almost 10 years ago already. um, where this was discussed. And, and really we've been largely unwilling to confront uh, the issue. We did a pilot in, in Newtown Court many years ago that some people may know about. Um, and that had various issues but was ultimately um, abandoned. And, you know, in the previous term, I suggested, um, connecting up the Manning Building in Central Square um, to City

fiber. And that suggestion ultimately was rejected, even though, you know, all the wires exist both inside the building and, and under the streets. So, you know, we've, we've known that we have a digital uh, divide in the City. And we have not really been willing to address it now because of COVID and, and the extreme nature of the need. We finally come up with a bare bones solution, which, which is great. Um, and, and we really need to continue to build on that and continue to look for opportunities where we can immediately uh, provide solutions. And you know, it's not just a problem for, for low income people. I mean, you know, even this morning I had to dial in over the- over the phone because using my Internet service um, was not sufficient to, to have a Zoom meeting. So, you know, and I'm on, on Comcast and I'm able to pay for their service. But unless I'm willing to pay literally hundreds of hundreds of dollars a month, uh, I cannot get a higher level of service right now. Um, whenever I, I ask Verizon about their fiber optic service and when that's coming to Cambridge and they literally laugh at me. So you know, there's a lot of opportunity here for us to uh, address these issues and we don't have to wait for Municipal Broadband to do so. There's a an effort that I'm involved with in the Port to set up a, a wireless mesh network. And again, you know, there's opportunities for the City um, to, to get involved in these efforts immediately um, independently of what we ultimately decide to do around Municipal Broadband. Because um, as Mr. McCormick explained, uh, you're very correct, that digital equity and Municipal Broadband are, are distinct and related issues. So there's lots of opportunities for us to address digital equity. And, and that has been true for many years. And I hope that the City will continue to look at those opportunities, even as we do these studies and, and um, decide whether we go down the Municipal Broadband rou- route or not. Um, that it can take many years and, and obviously as we've seen during this pandemic, uh, we just can't afford to take that long. So we need to really prioritize um, immediate solutions at the same time. Thank you.

**Patricia M. Nolan:** Uh, thank you Councillor Zondervan. Um, we can talk some other time, but I'm confused by your description of many of these places not having competition because Loveland, Colorado, Chattanooga, Braintree, Norwood, they all have other options. It's not that these are only in rural places that didn't already have Broadband. Um, Councillor Carlone.

**Dennis J. Carlone:** Uh, thank you, Madam Chair. I, I think it's interesting that all of us on the Council are pretty strongly pushing this issue. Number one, number two, excuse me, I do a lot of reading on um, urban history and um, and infrastructure is a key part of that. And I started thinking about well there was the telegraph and then that was superseded by the telephone. And then there was the radio and communications, then the TV, and then color TV, and then the famous facsimile, which uh, we kind of all smile at now, and Broadband. And there might have been other forms of communication. So this is my question for Mr. McCormick. Are we aware of a, a different kind of breakthrough in communication, much like I was indicating over the sort of 20 year to 40 year period there was always another Communication breakthrough. And if we're not, if something's not in the works, this becomes even more pressing. Um, because

every day matters. Is there something else in the works and the Communication field that you're aware of that goes beyond Broadband?

**Pat McCormick:** Um, through the Chair, um, is the Councillor referring to the type of technology um, used to reach the Internet or, or something else?

**Dennis J. Carlone:** I, I, Internet or better? In other words, is there some advancement that is within five years, that none of us and the Council would know about but you might, that is worth waiting for will be explored in the RFP. Um, or is this about as good as it's going to get in the foreseeable future as far as communication?

**Pat McCormick:** Yes. Um, so, so, so my response would be in this sort of thing can lead to a very spirited long discussion trying to predict the future. However, the two things I would say is I think the Internet for the- for the near future is here to stay. Um, and, and that is um, for various communication means, you know, uh, we're using the Internet more and more for telephony. It's voice over IP. We're using it more and more for, for video. So other traditional things, even radio people listen to on the Internet. So the Internet is certainly the means for the foreseeable future. In terms of the way you access the Internet, there's, there's always a debate of wireless, for example, catching up. And today's big debate is around 5G, which certainly will offer not right away, but over time, much, much faster speeds than we're used to via wireless. However, again, without getting lost in the weeds, it happens to be a technology that relies on much higher density of antennas. And many of those antennas need to be connected to fiber because we still need uh, fiber as it is by far the best way to have connectivity. And uh, without getting too deep into it, one of the things about fiber that's great is yes, it, it operates close to the speed of light and that it's using light, and the hardware on each end of the fiber cable can be upgraded without replacing that cable if the cable is not damaged. So what we've we're- what we're seeing, and what I expect will continue to see based on research, is we will get higher and higher speeds from fiber cables even as wireless tries to catch up but probably never will and always will rely on that fiber um, to, to patch together those faster networks. So um, I hope this, this uh, does, does uh, address your question?

**Dennis J. Carlone:** Yes. Yes. Thank you. Through the Chair. Thank you. Uh, I wasn't asking you to predict. I meant based on your knowledge now. Uh, thank you. That was helpful. Appreciate it. Thank you, Madam Chair.

**Patricia M. Nolan:** Thank you. Before I go to, um, Councillor Zondervan again, did- I just want to make sure, uh, either the Mayor or Councillor Governor have a chance to um, speak again? Councillor Zondervan.

**Quinton Zondervan:** Thank you, Madam Chair. Um, I just wanted to quickly respond um, to, to your comment and also to Councillor Carlone. Um, in terms of competition, I, I didn't mean to suggest that there was no competition, just that the situation um, is very different when there are well-established players who have um, most of the customer base and, and we're now trying to compete with them versus when there are a lot of customers who um, are available either because

we're able to offer a much improved level of service um, or because they, they simply don't have access to Broadband and, and in Cambridge that situation is just um, very complicated because most people who can afford it have Internet access. And so if, if our model is limited to can we compete with Comcast, um, we may well talk ourselves out of offering Municipal Broadband, um, which I think would be a huge mistake. Um, and, and to respond to Councillor Carlone, I think Mr. McCormick did a great job answering his question. I, I would um, add that you know the, the known- the known laws of physics do not allow for faster transmission of information than the speed of light. So it is difficult to imagine that we would come up with a better baseline technology than, than fiber um, cables which which ultimately just allow the information to travel uh, at or close to the speed of light. And there are some, some tricks that we seem to be learning uh, around quantum physics that may allow us to, to transfer individual pieces of information more, more quickly. But but in terms of downloading lots of information or exchanging data in real time, and the speed of light, as far as we know, is in the upper limit. So uh, that's why I mentioned earlier that there's, there's essentially no downside to putting fiber under our streets. And, and you know, even if we- even if it takes us a while to figure out exactly how to leverage that uh, in terms of Municipal Broadband. Thank you, Manager.

**Patricia M. Nolan:** Thank you. Um, yes, my reference was understanding Loveland, Colorado, which did have actually a lot of um, competitors. And also my go to would be Chattanooga, Tennessee. It's a totally different place. And yet the fact that after they did Municipal Broadband, the state of Tennessee forbid it and it wasn't because it wasn't working. It was working so well that they understood that they were going to prevent other municipalities from doing it. So I think we um, as a- as a City should be at the forefront of this. And one uh, question I had, it was raised in the very beginning. I believe when Mr. McCormick was talking, we didn't- none of us addressed it, but certainly net neutrality and open access, I would- I believe that Council actually in the City has stood pretty strongly in favor of it. So I'm... is that something Mr. Gianetti or Mr. McCormick or I'm not sure if the City Manager is still on. Need direction on whether that would be an important element of it, because if so, I'm sure we could all weigh in. But my understanding is that separate from this, the Council has certainly uh, passed Resolutions in favor of ensuring that neutrality and open access.

**Lee Gianetti:** I think we've had pretty clear direction from the Council on those issues.

**Patricia M. Nolan:** Okay. Thank you. Right. And obviously net neutrality, open access security, I'm glad that that's uh, already considered to be part of it. Uh, my other question, since my colleagues have spoken, Mr. Gianetti, Mr. McCormick, is there- do you feel like you have gotten at least enough from us? And are there any specific questions or further information um, that you would find helpful before we figure out with scheduling how to reconvene in a few weeks. And I know already the City Manager has said that you would be reaching out to Upgrade Cambridge. And as the Vice Mayor said, it would be good. And maybe

it's just reaching out to the small- to the business associations to say, hey, we're looking at this is, you know, is there something you want to add into this before we uh, move forward in the next few weeks? So i- it- is- are there any questions you have for us as you uh, move forward since we have another 15 minutes left? Um, and I want to make sure we're, we're giving you the the direction that you need so that we can schedule something quickly because I think you've heard clearly from us that we'd like to move this forward as soon as we can.

**Lee Gianetti:** From my perspective, thank you Madam Chair, and I'll let uh, pathway and I think I have gotten everything that I need for today. It, it will help us as we have our follow-up steps uh, to do and then if there's anything specific that we have um, based on anyone's comments you know we're happy to be able to reach out specifically like can you tell us a little bit more from my perspective um, I feel like I've got one what I've needed out of the Meeting um, I greatly uh, appreciate uh, the opportunity to be here with you. Thank you.

**Patricia M. Nolan:** I- we don't have to stay until 4:00 right?

**Pat McCormick:** No.

**Patricia M. Nolan:** So I don't believe, uh, we're set. Uh, uh, Councillor which... sorry, Mr. McCormick, if you want to speak and then we'll figure out if there's someone else. Mr McCormick.

**Pat McCormick:** Oh yes, Madam Chair. I, I was going to just concur and thank everyone for the input. Uh, my, my read on it is we are collectively reasonably close to the recommendation that was made by the Task Force. So that's encouraging because as I said at the start, I think keeping our focus as narrow as we can will make for a better result. And I think our conversation with, with Upgrade Cambridge will be another opportunity to test, you know, sort of a gap analysis against that. Um, I just wanted to add that for folks who might not know, um, Saul Tannenbaum who spoke on behalf of Upgrade Cambridge was a member of the Task Force as well. And uh, and, and Roy Russell um, I've also done some work with around this. So for those of us who've been working in Broadband for many years, our paths have crossed and um, you know we, we share um, a, a lot of these ideas. So that's very encouraging. So thank you very much.

**Patricia M. Nolan:** Thank you. I very much look forward to scheduling something uh, soon. I would say the next couple of weeks, but given that there may be an intervention of a little difficulty scheduling that first week of November, um, but definitely within a few weeks. So with that, I will entertain a Motion to adjourn. Councillor Carlone, could you take the, the roll?

**Madam Clerk:** On adjournment. Councillor Carlone.

**Dennis J. Carlone:** Yes.

**Madam Clerk:** Vice Mayor Mallon.

**Alanna M. Mallon:** Yes.

**Madam Clerk:** Councillor McGovern.

**Marc McGovern:** Yes.

**Madam Clerk:** Councillor Zondervan.

**Quinton Zondervan:** Yes.

**Patricia M. Nolan:** Thank you, everybody.

## **CERTIFICATION**

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*Casey Kern*