



CHAMPAIGN COUNTY BOARD BROADBAND TASK FORCE AGENDA

County of Champaign, Urbana, Illinois
Tuesday, April 5, 2022 - 4:30 p.m.

Shields-Carter Meeting Room / Zoom
Brookens Administrative Center
1776 E. Washington St., Urbana

Committee Members:

Stephanie Burnett	Jacob Paul
Samantha Carter – Vice-Chair	Mike Smeltzer
M.C. Neal	Eric Thorsland
Brad Passalacqua	Brad Uken – Chair
Kyle Patterson	

Pursuant to the Governor's Executive Order establishing a pandemic disaster in the State of Illinois that covers the County of Champaign, and the County Executive's determination that holding this meeting in person is not prudent at this time due to health concerns with rising numbers of COVID-19 cases and hospitalizations being reported in the county, this meeting will be held remotely via zoom. Public comment also will be taken remotely. The public may watch the meeting live or via recording on the County's [YouTube Channel](#)

<u>Agenda Items</u>	<u>Page #</u>
I. Call to Order	
II. Roll Call	
III. Approval of Agenda/Addendum	
IV. Approval of Minutes	
A. March 21, 2022	1 - 4
V. Public Participation	
*Being accepted remotely through Zoom – for instructions go to: https://www.co.champaign.il.us/CountyBoard/Broadband%20Task%20Force/2022/220405_Meeting/220405_Zoom_Meeting_Procedure.pdf	
VI. Communications	
VII. New Business	
A. Strategic Considerations for Bringing Broadband to Underserved Areas of Champaign County	
1. Pages 13-20 of the Broadband Plan Report	5 - 12
2. Memo – Broadband Project Strategic Considerations	13 - 15
VIII. Other Business	
A. Date of next meeting	
IX. Chair's Report	
X. Adjournment	

All meetings are at Brookens Administrative Center – 1776 E Washington Street in Urbana – unless otherwise noted. To enter Brookens after 4:30 p.m., enter at the north (rear) entrance located off Lierman Avenue. Champaign County will generally, upon request, provide appropriate aids and services leading to effective communication for qualified persons with disabilities. Please contact Administrative Services, 217-384-3776, as soon as possible but no later than 48 hours before the scheduled meeting.



**CHAMPAIGN COUNTY BOARD
BROADBAND TASK FORCE AGENDA**

County of Champaign, Urbana, Illinois
Monday, March 21, 2022 - 6:30 p.m.

Shields-Carter Meeting Room
Brookens Administrative Center
1776 E. Washington St., Urbana

MINUTES – Subject to Review and Approval

Members Present: Samantha Carter, M.C. Neal, Brad Passalacqua, Kyle Patterson, Mike Smeltzer, Eric Thorsland and Brad Uken

Members Absent: Samantha Burnett and Jacob Paul

Others Present: Sean Middleton and Tim Arbeiter with Finley/CCG Consulting, Darlene Kloeppe (County Executive), MaryEllen Wuellner (Grant Writer) and Mary Ward (Recording Secretary)

Agenda Items

I. Call to Order

Mr. Uken called the meeting to order at 6:31 p.m.

II. Roll Call

Roll call was taken, and a quorum was declared present.

III. Approval of Agenda/Addendum

MOTION by Mr. Thorsland to approve the agenda, seconded by Mr. Smeltzer. Upon voice vote, the **MOTION CARRIED** unanimously.

IV. Approval of Minutes

A. October 26, 2021

MOTION by Mr. Passalacqua to approve the minutes of the October 26, 2021 meeting, seconded by Mr. Neal. Upon voice vote, the **MOTION CARRIED** unanimously.

V. Public Participation

Jason Young, Volo Internet & Tech, spoke regarding a shared vision of this project. They have a strong desire to assist in the rural expansion of fiber networks throughout Central Illinois and Champaign County.

VI. Communications

Ms. Kloeppe introduced Mary Ellen Wuellner, who is a Grant Writer for the County.

VII. New Business

A. Overview of Broadband Plan Report by Finley Engineering/CCG Consulting

Sean Middleton, Director of Strategy and Operations, and Tim Arbeiter, Director of Broadband Consulting, for Finley Engineering gave an overview of the Broadband Plan Report. They have done a number of these reports and it is tailored to the entity they are working for.

56 Doug Dawson is the principal person who wrote the report and prepared the presentation for tonight.
57 The scope of the project was to give the County an actionable, non-dust collecting report with details
58 to think about what the next steps are and how grants will figure in. Grants are what's driving
59 everything in the industry today. There are three major uses of the report: inform elected offices and
60 the public about broadband issues, provide a framework for how to move forward and provide the
61 facts that are needed for ISP's interested in serving the county.
62

63 The analysis was done for all areas outside of Champaign-Urbana. They did a secondary split and
64 removed the larger towns that have a cable provider and a third split of the rural areas into places that
65 are covered by tentative RDOF broadband awards and those without. They also looked at the existing
66 ISPs that serve the county. RDOF was explained and the issues with it. They have taken RDOF
67 funds into account in the study. Maps were shown that showed areas where RDOF had been awarded
68 and what future speeds might look like with RDOF.
69

70 Mr. Neal asked about upload/download speeds; the 100/20 is that something new from the FCC. Mr.
71 Aribeiter said that the new definitions that have come out call for the gold standard of 100/100 with a
72 fall back of 100/20.
73

74 As part of the study they did market outreach with surveys for residents/businesses, online speed tests
75 and interviews with stakeholders. There were some surprises in the responses; 10% of households
76 don't have home broadband, 70% of those responding have someone working at home at least part-
77 time and 19% of homes have someone working full-time. 73% of residents support building a fiber
78 network and another 26% might support it but need more information. Business surveys and
79 interviews showed the most common problems were slow broadband in daytime and occasional
80 outages. It is more difficult to sell rural homes if they don't have good broadband. They were
81 impressed by how tech savvy the farmers are in Champaign County but are now frustrated because
82 the newer technology maybe doesn't work right with the older broadband. Speed tests were pretty
83 typical.
84

85 They were asked to look at all the technologies available to close the gaps. Their recommendation is
86 that passive option network fiber technology is the best fit for the County. Fiber required: whole
87 study area (county less Champaign-Urbana) 1,956 miles; rural areas (larger towns taken out) 1,332
88 miles and in the non-RDOF areas 920 miles. The plan allows for redundancy and future growth.
89

90 Total cost of a new network for the Whole Area is \$164,412,788; Total Rural is \$71,765,175 and the
91 No RDOF Areas is \$54,376,990. Cost per passing for the Whole Area is \$4,088; Total Rural is
92 \$10,872 and No RDOF is \$11,744.
93

94 Grant funding will be mostly aimed at rural areas, but states will have a say in who gets funding. The
95 state of Illinois will have several rounds of state broadband grants. Mr. Smeltzer asked if they are
96 confident that ARPA funds can be used a local matching funds for grants? The assumption is that
97 they will be, but we won't know for sure until they drop the official regulations this summer. Mr.
98 Smeltzer said if the County can't use ARPA funds, that will be a game changer. There is other
99 funding through the state that ARPA funds can be used. Connect Illinois program is well designed
100 and easy to read/understand.
101

102 Strategic questions that need to be look at include: *What to do about RDOF areas? We don't know
103 what will happen with these areas. Would the county consider partnering with a wireless provider?
104 *Is the County willing to help fund a solution? If so, how much and in what manner? There are a lot
105 of scenarios to consider. *What is the County's best role in finding a solution? Important to
106 determine your role in the process.
107

108 What are the next steps? Need to identify staffing resources to help keep it moving forward. Reach
109 out to ISPs who could be potential partners. It's better to talk to them early in the process. Many

110 ISPs are enrolled in the low-income programs, and they should be asked about this. Community
111 Outreach is important. You need to involve the public in the process. Have listening sessions, etc.
112 No one likes to be surprised. Statistically Valid Surveys are important and might require more than
113 one. Review local fiber policies to see if there are any barriers standing in the way. Look at filing
114 fees, permits, easements, etc. to make it easier to accomplish the task. Mr. Patterson asked what are
115 the barriers to the project? That was not a part of the scope of the project, but it's better to be
116 proactive with that rather than wait until something is an issue.

117 118 B. Discussion of Broadband Plan Report

119
120 Mr. Passalacqua asked if fiber all the way was the recommendation and if they had taken everything
121 into consideration when making the recommendation – easements, miles, etc. Yes, everything was
122 considered. They actually had people drive the county and make assessments. A consideration with
123 wireless is that the frequency spectrum is getting full. With some of the requirements of grant
124 funding, it would require a lot of spectrum. Another consideration was the ease with which cable can
125 be buried owing to the fact that Champaign County is relatively flat. It's also an option to run the
126 cable aerially in some areas. There was also discussion on the longevity of both buried and aerial
127 cable.

128
129 Mr. Uken wanted to clarify the speeds in relation to ARPA funds. 100/100 is what is in ARPA or
130 scalable to that. 100/20 is acceptable but must be able to prove scalability. The absolute goal is
131 100/100. The fiber network they are suggesting is gigabit capable symmetric both ways. One reason
132 they did not suggest wireless is because with today's technology, when companies are running speed
133 tests, they are struggling to get to 100/20. There is also language in the guidelines that talks about
134 reliability, consistency and being able to support multiple devices. Upload is now more important
135 with the advent of Telemedicine, use of Zoom/video, educational purposes, etc. We need to be
136 looking toward the future.

137
138 Mr. Uken said that looking toward the future is spot on. He's spoken with a lot of people who would
139 be happy with something better than what they have now. We cannot be happy with just slightly
140 better; we need to shoot for 100/100. This is probably a once in a generation for funding. We need to
141 look for the future and shoot for that.

142
143 Mr. Thorsland said they have made a good case for fiber. His question was about the RDOF areas
144 and when we might know if the companies that won those areas are going to commit. That will
145 impact what we might do and how we do it. He also asked if costs were factored in for the easement
146 process, damage costs like broken tile, etc. Those costs to build were all factored in and are based on
147 their previous experience. Easements were also discussed; they can be touchy. The community
148 engagement part becomes critical in helping with easements. Mr. Uken stated that in the plan report
149 they may have over-stated the ease of getting easements. He then spoke to the RDOF question. The
150 biggest one of the three that have been awarded in Champaign County is moving ahead. They have
151 been to ELUC and have a case before ZBA. They've been approved and have not yet received any
152 money, but they are moving forward with wireless and feel they can get to 100/100. Mr. Arbeiter
153 explained the process for the RDOF funds. He feels that within a few weeks we will know that
154 RDOF Phase I is done.

155
156 Mr. Smeltzer complimented them on their report and that it was very thorough. He thinks that there
157 is an error on the bottom chart on page 7 having to do with the number of passings in the Without
158 RDOF column. He believes the residential number is in correct. Maybe it should be 3,643 instead of
159 6,643. This same chart is also on page 136. They will check into that make sure it is correct.

160
161 Ms. Carter asked if they had pre-Covid numbers of households without internet. Would like to see
162 those numbers as a comparison. She also asked if we should be looking for a partner provider as a
163 next step. That is important piece to be considered and finding the right partner is critical to success.

164 They can go back to census data and the American Communities Survey and will be able to get some
165 comparisons and will provide that to the committee.

166
167 Ms. Wuellner thought the financials were very thorough, but the amount is very much contingent on
168 the take rate and the grant is contingent on the take rate. How do you know how much funding to go
169 after when you don't know what the take rate will be? Those numbers are based on their experience
170 after doing this for several communities. It is conjecture but based on evidence. Ms. Wuellner then
171 asked if you applied at a lower take rate but then were really successful and were above that rate,
172 would they ask for the money back? The grant process is usually designed for projects to be
173 successful and some of that is built in. Typically, they do not ask for money back. Mr. Smeltzer said
174 that would be a good problem to have it we asked for 40% and got 60%.

175
176 Mr. Neal asked about reaching local ISPs for fiber and if no one is found and a wireless provider, who
177 already has spectrum, would want to work with us would that be a route we could take or would you
178 still recommend a fiber network. Mr. Middleton said that would be an option especially if they have
179 RDOF funds. That could be a very strategic play on our part to partner with them. If they are holding
180 spectrum and not having to acquire new, that could be a game changer.

181
182 Mr. Uken said that the company that won the largest amount of RDOF funds in Champaign County is
183 planning to ask for support and money to go along with that.

184
185 Mr. Middleton stated that what we have paid for with this study is the most critical piece of what
186 going into a grant is going to need. Market research and the high-level design in the budget is the
187 heavy lifting you need to move into that. You are now in a position where you have actionable info
188 that can be used for grant funding.

189
190 Mr. Uken said that the key points for the next steps are on pages 13-20 of the report. He would like
191 to have everyone read those pages and then meet in the next two weeks and focus the discussion on
192 those pages.

193
194 **VIII. Other Business**
195 A. Date of next meeting
196
197 The date of the next is to be determined. Discussion was held on the rules on the Open Meetings Act
198 and meetings being held virtually. It was decided to check further into being able to do part of the
199 meeting virtually. Mr. Uken will work on coordinating the next meeting date.

200
201 **IX. Chair's Report**
202
203 There was no Chair's Report.

204
205 **X. Adjournment**
206
207 Mr. Uken adjourned the meeting at 8:10 p.m.

208
209
210 *Please note the minutes reflect the order of the agenda and may not necessarily reflect the order of business*
211 *conducted at the meeting.*

STRATEGIC CONSIDERATIONS

The creation of the \$42.5 billion BEAD grant program has changed the process moving forward for most of rural America. Before the big federal grants, the big challenge for most counties was where to find the money needed to bring broadband. We don't know if the BEAD grant program is large enough to solve the broadband problems in all of rural Illinois, but it's going to solve a significant percentage of the issue.

The focus for communities has shifted the focus from wondering where to find the needed funding to bring broadband to instead positioning the community to be at the forefront of those that get the needed broadband funding. We believe that the County can play a key role in making sure that you receive the needed grant funding to bring broadband to the rural parts of the county.

We think there is a significant possibility that multiple ISPs will pursue grant funding in some or all of the rural areas of the county. We find it likely that one or more of the companies that already won RDOF funding in the county will pursue the larger grants to create a larger and more coherent serving area. Note that the two biggest tentative RDOF winners are proposing to bring a wireless solution and not fiber. We think there is a chance that one or more of the big ISPs like AT&T, Frontier, Windstream, and likely others will pursue the big granting funding. We can't know for sure that any of them will pursue a grant in the county, but they've all announced aggressive plans to seek grants. There is also a chance that an ISP you've never heard of will pursue grants to serve the area. In the RDOF awards, a fiber overbuilder from Georgia won the majority of the RDOF awards in rural Michigan – we think there will be investor backed ISPs that might go after the grants across gigantic geographic areas – and those awarding grants might find that attractive.

The challenge facing the County is that none of these may be the ISP you want. A lot of rural areas are highly leery of seeing grant money going to ISPs that are promising superfast wireless solutions. Such technologies are new and unproven, and wireless is probably not the technology to carry the county into the next fifty years.

Most counties are leery of the grants going to the big telephone companies. The big telephone companies carry a lot of the blame for the poor condition of broadband in the rural areas. The companies slowly abandoned rural America starting in the 1980s. They closed local customer service offices. They cut back on technician staff to the point where it is nearly impossible to get a problem fixed quickly, if at all. They stopped making any investments in rural areas, so technology came to a standstill at a time when technology everywhere else was being modernized – including rural areas operated by smaller telephone companies and cooperatives. The question that communities are wrestling with is if they should trust these big companies again? What's to stop the big companies from taking federal grants, building just enough to meet the letter of the law, and then underfunding maintenance going forward and starting the cycle all over again. If a new fiber network is not properly maintained, it will begin to show problems in a decade and could become a paperweight in two decades.

Finally, there is no obvious local ISP that is able and ready to tackle serving the whole rural area. It's possible that one of the local ISPs could take that role, but there are a few things for the County to consider before backing a local ISP. First, grants tend to be given to ISPs with strong balance sheets. As this study shows, a grant winner will need to raise substantial matching funds – and that is going to be a challenge

Broadband Infrastructure Engineering Assessment Report

for any ISP who has not raised a lot of money before or one that has already reached its natural credit limit.

The purpose of this discussion is to point out that the County can play a significant role in influencing the ISP that can win a grant to serve the rural areas. For example, if the County partners with an ISP and pledges some ARPA or other money as matching funds, that ISP will be viewed favorably by those making the big grant awards. Current grants are going to encourage and reward local collaboration and local skin in the game.

This is not to say that an ISP the county backs will be an automatic grant winner. If some large, well-financed ISP promises to serve a seven-county areas that includes Champaign County, that ISP may still win instead of the County and a chosen partner. But we think it's likely that the County and a strong ISP partner will have a strong case for winning grant funding.

Why is this important? If the County does nothing, it's likely that one or more entities will ask for grants to serve the rural areas. It's possible that an ISP you don't want, or a technology you don't want could get funded. There is also no assurance that anybody will win grant funding for the county - especially if none were endorsed by the County with a local financial pledge. There are many who think the \$42.5 billion is not nearly enough to solve all of the rural broadband needs in the country. If you don't find a broadband solution in the upcoming grants, there might not be another chance for a long time.

A final option would be for the County to pursue the funding directly, with the County acting as the ISP. From what we've seen with recent grant funding, we don't think that is a good idea. The NTIA awarded a lot of money in 2009 to entities that had never been an ISP, and many of them failed. We think there will be a big emphasis with the upcoming grants to fund entities that have already proven they know how to be as ISP – the NTIA is not going to want to see big grant dollars going to entities with no experience.

The bottom line of this discussion is that the County needs to partner with one or more ISPs to pursue grant funding. That's the only chance for you to influence who will win the grant funding. If you don't do that, you could end up with an ISP you don't trust, a technology that is not future-proof, or even with no broadband solution. The County's biggest strategic decision might be deciding who to partner with to pursue grants.

A lot of the steps needed to move forward will be discussed in the following section that describes specific tactical steps needed to make sure you are ready for the big grant funding. But there are few other strategic decisions to be made before moving forward.

Is the County Willing to Help Fund a Solution?

As the discussion above highlighted, we believe that communities that 'put skin in the game' will have a higher chance of attracting grant funding than those which don't. This boils down to being willing to invest in a broadband solution.

We doubt the County is willing to shoulder the whole financial burden to fund fiber. The analysis shows that the funding needed to bring broadband to the rural areas is roughly \$76 million for the whole rural area or around \$57 million for the areas that aren't already covered by RDOF. We know counties that are

Broadband Infrastructure Engineering Assessment Report

using ARPA (American Rescue Plan Act) funds to fund a large portion of rural broadband, but it would be extraordinary for the County to pony up enough money that you don't need to rely on grant funds. Considering the federal grants on the horizon, that seems like a drastic solution.

But as the simple analysis in the Finding section above showed, even with federal grant funding, an ISP will need to bring between \$18 million and \$24 million to the table to make these scenarios work. That's a large investment to make in a rural market that may never generate an acceptable return for an ISP to justify the investment.

One role that the County can play is to bring some matching funds to make it easier for an ISP to be successful. There are a lot of other demands on ARPA funding in every county, but you'd be well advised to set aside some of that funding to help find a broadband solution you like. Funding doesn't only have to come from ARPA monies. Around the country we are seeing rural counties that are willing to float small bond issues to use as matching funds to attract ISPs.

Consider a Collaborative Effort to Get Better Broadband

It's becoming clear that the big federal grant programs are valuing coalitions over an individual ISP or a single local government asking for grants as a standalone entity. Even if the County finds a partner ISP to build the needed broadband, any grant funding is going to have a better chance of success if a lot of other stakeholders in the county take a role in getting that funding.

For past grants, community support was mostly accomplished through letters of support sent with the grants. Those are still going to be needed, but a coalition goes a lot further than that. There are a few different ways that county stakeholders can participate and help to assure that the local grant team wins a grant.

As an example, in the past, the Farm Bureau might have provided a letter of support for a grant. A more proactive step might be to get farmers to pledge to buy broadband if somebody brings fiber to their farm. That way, the grant folks aren't hearing from the Farm Bureau but instead from a long list of farmers who have made a pledge. That's much stronger support than would have been supplied for grant filings in the past.

We think an important strategic step to take in the current grant environment is to recognize that coalitions are important and to figure out how to active coalitions to support a grant request.

What Are You Willing to Tackle?

There are a lot of different ways for the County to get involved. Not only is there an opportunity to build rural broadband infrastructure, but there is an opportunity to find grant funding for digital inclusion that might include such efforts as getting computers into homes, making sure residents take advantage of broadband subsidies, funding training classes in digital literacy, or workforce development by establishing programs to train fiber technicians.

This is all a lot to chew off and tackle, and one of the earliest strategic discussions is to have a frank discussion of what the County and other stakeholders are realistically willing and able to tackle.

RECOMMENDED NEXT STEPS

The section above discussed the strategic decisions that must be made - the County needs to decide how you want to move forward. Once you've made that decision, this section discusses specific steps that we think you'll want to consider.

Note that you might want to undertake some of these steps concurrently with wrestling with the strategic issues.

Who Will Tackle the Next Steps?

One of the first things to consider after getting this public is to determine who specifically needs to get involved in the next steps. For example, there may be things that your broadband committee is authorized to tackle. But many of the next steps will require approval and funding from County staff or elected officials. There may be tasks that other stakeholders or volunteers might best be able to tackle. And after considering all of that, it may become obvious that the County needs to hire or dedicate an existing resource to get this done this year. This is the year to get ready for the giant grants, and you'll have to find all of the solutions and identify the needed funding before the end of the year, and possibly sooner.

We've seen many efforts to get broadband that fizzled when nobody was dedicated to the community engagement tasks. We've seen the following ways that communities have identified the needed resources.

- Dedicate Staff. The communities that have done this the best have dedicated at least one staff person to concentrate on community engagement. The biggest challenge in doing this is usually finding the funding. A lot of communities are funding this effort this year through the ARPA funding. The staff could come from many different places, from existing county staff, from economic development staff, or a new hire.

The person undertaking this task needs to be a big believer and advocate of broadband for it to be successful. This is not a permanent position, but rather somebody dedicated to this effort for some fixed time. This is also not a 9 to 5 job with a lot of demands placed on evenings and weekends.

We worked with a county in Minnesota that found a broadband solution because the mayor of one of the smallest towns in the county told his economic development director that getting broadband was his top priority. This one person met with everybody imaginable in the county, including city governments, county governments, state representatives, and every civic and social group imaginable. After two years of tireless effort, the county found a broadband solution. This would never have happened without this one dedicated staff position.

- Volunteers. Volunteers are also an important part of this effort. You already have the broadband committee, but you all have other jobs. It might be possible to recruit volunteers to help this year. There are typically people living in areas with no broadband who are willing to volunteer to help find a solution. In the example given above of the Minnesota county, the one staffer assembled a group of active volunteers who helped with the effort to engage the public. These folks created email lists, went canvassing Champaign-to-Champaign talking about the need for broadband, and showed up at every government meeting to stress that they wanted a broadband solution. It's important that any volunteer effort has some structure and working with a staff person can make

Broadband Infrastructure Engineering Assessment Report

sure such a group stays focused. The County needs to be prepared to fund efforts that the volunteers think are needed. In the case of the Minnesota county, the volunteers engaged in several rounds of postcard mailings asking homeowners to pledge support for broadband.

- ISPs. Any ISP partners will do a lot of the technical and grant preparation work, but they are going to be of little help for the community side of the effort.

Reach out to Potential ISP Partners

One of the primary purposes of this study was to gather the facts needed by ISPs to tackle rural broadband. This report does several things for any potential ISP partner:

- We've created maps showing the areas that we think are eligible for federal broadband grants. This is something that ISPs don't have at their fingertips.
- The study quantifies the cost of building a new fiber network. The engineering was also done in such a way that Finley Engineering can supply an ISP with a subset of the costs if an ISP only wants to tackle bringing broadband to a portion of the county.
- We've demonstrated the financial viability of an ISP being able to make work in several ways. For example, this study estimated broadband revenues. It wouldn't be hard for an ISP that has different rates than the ones assumed in our analysis to update our estimate for their purposes. We've also quantified the amount of grant funding that we think is needed to make this work. An ISP can now look at the potential grant funding and decide if that creates a viable business plan.
- We've made some high-level estimates of customer penetration rates based upon your surveys and our experience in working in other similar rural areas.

We think one of your first steps should be to reach out to potential ISP partners. That begins by sharing the results of this report with local ISPs. We warn that you must be careful in interpreting the reactions of ISPs. Most ISPs will say they are interested in looking at grants. What some of them won't tell you is that they are only interested if they can find almost all of the needed funds through grants. Your challenge will be to find out if any local ISPs are really interested. As mentioned elsewhere in the report, the biggest barrier for most ISPs is the ability to raise the needed matching funds.

If there are no local ISPs interested, you should widen the search. This is discussed in more detail in section IV.B. of the report. This is also the time to start seriously thinking of alternate plans, such as the County funding the network and partnering with an ISP to operate it.

You also might find that no single ISP is willing to tackle the entire rural parts of the county. There might be different ISPs interested in different geographic areas. You'll have to be flexible because that might mean working to support multiple grant applications.

Educate the Public

The surveys and interviews indicate a lot of interest from the general public for getting better broadband. You should determine the best way to inform the public of the results of this report and begin gathering support for moving towards a broadband solution. One important aspect of community engagement is to provide useful information to the public to help them better understand broadband issues. It also means providing basic information that explains broadband in ways the public can understand. We've seen communities tackle public education in some of the following ways.

Broadband Infrastructure Engineering Assessment Report

- Publish This Feasibility Report. While not a lot of people will wade the whole way through a report of this size, it has been written for the layperson.
- Hold Public Meetings. Meetings can be held to explain the results of this report, or meetings could be more generic and be aimed at explaining the broadband issues. It's worthwhile to have elected officials at public meetings to directly hear the kinds of issues that households have due to the lack of broadband. It's vital to advertise heavily to drive attendance at meetings – even if they are virtual.
- Broadband Website.¹ Many communities that are looking for broadband solutions create a broadband web page. Such a page can be used to educate as well as inform. For example, a common educational feature is to have a lengthy section with responses to “Frequently Asked Questions.” It's important that if you create a broadband website that you keep it current. You want the public to think of this site as a resource.
- Gather a List of Broadband Proponents. One valuable tool is to create a database of local broadband proponents – citizens who say they support fiber. Having a list of emails, home addresses, and phone numbers can be useful when you want to ask for public support for specific tasks or want to notify people of upcoming meetings.
- Broadband Newsletter. Cities often create a newsletter dedicated to broadband. These newsletters are aimed at educating the public on topics related to broadband and also to keep the public informed on the progress of the effort to get better broadband.
- Outreach Meetings. One of the most successful ways to reach the public is what CCG calls outreach. This means sending a spokesperson to meetings of local organizations to talk about better broadband. This can be any sort of group – PTAs, church groups, service organizations, youth groups, etc. Most organizations will allow time for a short presentation. It's vital to have a prepared presentation to get across whatever message you want the public to know. These outreach meetings are best done by those who are strong broadband proponents – this could be one of the tasks assigned to a Broadband Task Force or given to willing volunteers.

Define Potential Customers Better

The surveys conducted for this study were online and not statistically valid. That means that the surveys contributed a lot of insight into how the community feels about existing broadband and what they would like in the future. But online surveys do predict hard statistics like possible customer penetration rates. The primary reason for this is that the surveys are not random – the people who elect to take the survey online are already those who are interested in broadband. In survey lingo, these folks are self-selected. To understand customer penetration rates, it's important to hear equally from folks who don't want broadband than only those who do.

There are two ways to gather data about possible customer penetration rates – statistically valid surveys and canvasses. We find it likely that an ISP partner will want more assurance about the level of customer interest in buying broadband – and they might hope that the County can either pay for that effort or head up the required work.

Statistically Valid Survey. A statistically valid survey can be used to predict the most likely range of customer broadband penetration should somebody build a broadband network. We've found over the years

¹ Here is a good example of a community broadband website. <https://falmouthnet.org/>

Broadband Infrastructure Engineering Assessment Report

that if a survey is conducted to be statistically valid, that the results provide a good prediction of the likely customer penetration rates.

There are a few factors that are vital for getting an accurate and believable survey. First, the questions asked must be unbiased and can't lead respondents into answering in a given way. It's also important for a survey to be random if you want the results to represent the whole county. For example, since the goal is to predict broadband penetration rates, it's just as important to hear from those who don't want broadband as it is to hear from those who do.

It's also essential to have confidence in the survey results, and this speaks to the accuracy of the answers obtained in the survey. Most business and political surveys are designed to provide an accuracy of 95% plus or minus 5%. That accuracy would mean that if you were to ask the same questions to 100% of the people in the area that the results should not vary by more than 5% from what was obtained in the survey. That is a high level of accuracy, but other levels of accuracy are possible by varying the number of completed surveys. For most communities, getting between 365 and 380 completed surveys will produce this desired accuracy.

The last factor to consider is a phenomenon called survey fatigue. If the survey asks too many questions or takes too long, then a lot of people will hang up in the middle of the survey. An ideal survey is done in 5 minutes and no longer than 10 minutes.

There are two common methods used to conduct a statistically valid survey of a whole community – either by knocking on doors or by telephone. There are challenges in a rural area for both of these methodologies. The effort required to knock on doors requires a lot of effort since it means going to homes randomly and hitting all the corners of the rural areas. You'd have to knock on doors of all types, from the smallest to the largest homes. There are survey methodologies to make sure such a survey is random. The primary issue is the number of people needed to give the surveys. We found that this is only affordable if done using volunteers.

It's far easier to administer the survey by telephone, but it makes no sense these days to do a telephone survey using the white pages and calling just landlines. We know that the households keeping landlines are older and more conservative, and their responses on a survey probably don't represent all households in an area. A valid telephone survey needs a list of telephone numbers that include cellphone numbers.

The challenge of conducting a telephone survey is obtaining a list of the rural telephone numbers. That is sometimes impossible.

Canvass. An alternative to a survey would be to conduct a canvass. This is often referred to in the industry as a pledge card drive. This requires an effort to ask as many of the rural folks in the county if they will buy service if somebody brings a new fiber network to their location.

Ideally, you don't do a pledge card drive until you know the prices and speeds of the future broadband, which are the two facts people want to know. Pledge card drives are generally tackled in several ways. It often starts with a postcard mailing where folks just check a yes or no box and return the postcard. If that doesn't get enough responses, many communities then get volunteers to call folks to try to get an answer. You'll never get 100% of people to respond, but if you can get north of a 40% response this starts to be

even more accurate than a survey.

Review Local Policies Related to Fiber Construction

One factor that always worries ISPs is that there will be local rules, ordinances, and processes that will slow down the construction process and add cost to the fiber construction process.

Champaign County should coordinate a review of the following kinds of policies to see if there are ways to be friendlier to ISPs. Changing these processes might require new ordinances or new internal procedures. Local governments need to remember that any changes made to accommodate a new ISP should also apply to the incumbent ISPs operating in the county. Some of the areas that should be investigated include:

- Granting rights-of-ways to construct a network.
- Issuing permits to construct a network.
- Locating existing underground utilities where fiber is to be buried.
- Inspecting and approving that construction is following the permits.
- Requiring things like traffic control during the construction process.
- Requiring other kinds of agreements like franchise agreements or rights-of-way agreements.
- Requiring records of what's been constructed.

It's possible that the rules are the same everywhere, but they also might differ around the county. The goal would be to eliminate rules that would hinder fiber construction.

Tackle the Other Broadband Gaps

Section I.E. of the report discusses ways to tackle the other broadband gaps such as the homework gap, the computer ownership gap, and the digital literacy gap.



OFFICE OF THE CHAMPAIGN COUNTY EXECUTIVE

1776 East Washington Street, Urbana, Illinois 61802-4581

Darlene A. Kloeppe, County Executive

Memorandum

To: Broadband Task Force Members
From: Darlene Kloeppe, County Executive
Mary Ellen Wuellner, Grant Writer
Date: March 30, 2022
Re: Broadband Project Strategic Considerations

Following submission of CCG/Finley's report to the Broadband Task Force, we have summarized the decision points for the Task Force's recommendations to the full County Board for next steps to build out broadband for Champaign County.

- 1) Determine which model is most favorable for county
 - a. Retail model – single/multiple ISP (current provider)
 - i. Consultants' recommendation
 - ii. Page 157
 - b. Open access
 - i. Local government builds fiber network and makes it available to multiple ISPs
 - ii. Page 158
 - c. Public-private partnership
 - i. Funded by local government, ISP, or financial stake shared between both
 - ii. Page 161
 - d. Some other approach
 - i. Regional collaboration
- 2) Assuming model (1a) is chosen, issue an RFQ (or RFI) for private providers to install, operate, and maintain broadband internet network reaching unserved and underserved premises in Champaign County
 - a. Provide copy of Finley study for information
 - b. Use points scoring matrix, with cost being only one factor
 - c. May consider more than one ISP to cover all un/underserved
 - d. ARPA (or other) funds may be provided as match by county – points given to those requiring the least amount of county funding
 - e. Open access not required, although grant funders like open access model
 - f. Grant funds needed – how much to make project financially feasible
 - g. Specify speed/reliability requirements but not how to design system
 - h. Give preferential points to those that closely align with Finley design recommendations (?)
 - i. Select proposal or qualification request method that allows decision to be based on points awarded and not lowest cost – per county's purchasing policies

- 3) Determine range of options for county contribution
 - a. How much ARPA funding will the county commit toward the match? (ARPA funding (and other federal pandemic relief funds) are the *only* federal funds eligible for match to BEAD and other NTIA)
 - b. BEAD is expected to be the largest funding source available – requires 25% match toward project costs, ARPA and in-kind contributions are eligible match
 - c. Is there an additional bonding option available to the county? (very limited capacity due to planned county facility projects)
 - d. Other in-kind contributions – fee waivers, easements, construction work, offices, equipment
 - e. Advance subscriptions?

- 4) Identify task force, staff, volunteers, and/or consultant roles
 - a. Research policy/procedural barriers
 - b. Project oversight
 - i. Develop design criteria, specifications
 - ii. Put together the RFI/Q for ISPs
 - iii. Develop the ISP(s) contracts
 - iv. Project management, site inspections
 - c. Community survey
 - i. Determine accurate data on access, speed, and tech knowledge
 - ii. Gather non-binding commitments from households and businesses
 - iii. Obtain quotes for statistically valid survey – there are survey firms that have access to landline and cell phone numbers
 - d. Community engagement
 - i. Hold public meetings
 - ii. Hold meeting of key stakeholders to get buy-in, support, and ask them to share message
 - iii. Attend village board meetings
 - iv. Meet with chambers of commerce
 - v. Attend community organization meetings
 - vi. Send informational mailing/newsletter
 - vii. Use social media
 - viii. Obtain letters of support for grants

- 5) Grant Considerations – need the following for a competitive *implementation* grant application
 - a. Detailed project budget with amount of grant funding needed
 - b. Identified project partners, collaborators
 - c. Letters of support from partners and key stakeholders
 - d. Evidence of community outreach/engagement
 - e. Identified need – using mapped areas of un- and under-served households, businesses
 - f. Engineering design and project schedule

Grants Available (not a complete list)

1) Grant options – federal

- a. BEAD – NOFO expected in May/June 2022; covers 75% of project costs; grant amounts are likely to be large enough to cover project area; considered a last-mile program
- b. Middle Mile Grants – NOFO may be released in same timeframe as BEAD; does not provide funding to serve end users but can expand service into un/underserved areas; partnerships with energy sector entities (overlapping services and infrastructure) are encouraged; applications will go directly to NTIA, not through the states
- c. ARPA funds – planning and implementing broadband projects are eligible uses of ARPA funds, ARPA can also be match for BEAD and MM grants
- d. Rural E-Connectivity Program (USDA) – currently closed, \$25M max per applicant

2) Grant options – state

- a. Connect IL – available now through 2024 or until funds run out
 - i. Allowable costs include all or a portion of the following: network design; project planning; obtaining construction permits; construction of facilities – including deployment of middle mile and/or last mile infrastructure; durable equipment; and installation and testing of the broadband service
 - ii. Max award is \$10M; 50% (or greater) match is recommended but not required; points awarded for 50%+ match; ARPA can be used as match
 - iii. Confirm it can be used for planning only
 - iv. Apply to cover work needed to position us for a BEAD?

3) Grant options – other

- a. Kubota Hometown Proud, due April 15, \$100k awards, highly competitive