Task Force Members Present: Chair - Chris Clements - UC Davis, Vice-Chair - Christine Crawford, Yolo County Broadband Working Group, Jeff Mischkinsky - DavisGig, Mike Adams - Davis Community Network, Autumn Labbe-Renault - Davis Media Access, Jacques Franco - Utility Rate Advisory Committee, Carolyn Stiver - Davis Chamber of Commerce, Stephen McMahon - Community Representative, Scott Adler - Community Representative
Task Force Members Absent: Autumn Labbe-Renault - Davis Media Access, Marcia Bernard - DJUSD

Staff: Sarah Worley, Deputy Innovation Officer, Robert Schulz, Media Services Specialist

1. **Call to Order & Roll Call** – 6:33 p.m.

2. **Approval of Agenda** – Motion to approve by Steve McMahon. Seconded by Jeff Mischkinsky. Passes unanimously 8-0, 2 absent.

3. **Brief Announcements from Staff and Task Force** – staff shared article re: Comcast deploying 1Gig broadband in Sacramento region; and Phillip Arndt, Comcast Director of Government Affairs offer to meet with Task Force, if they are interested.
   Staff confirmed the existing City and Comcast connections to public buildings in community, in response to question. Task Force expressed interest in hearing from local technology companies about their broadband needs.

4. **Public Comment**
   UC Davis graduate student from China, Zhiquing Xin asked if Task Force members would fill out a survey he is conducting of City Commissioners and Advisory Groups about the City’s public review process, and distributed copies of his survey.
   Larry Synder, community member attending meeting because of newspaper article he read by Davis Community Network about the Task Force and Broadband Feasibility study being prepared.

5. **Consent Calendar**
   A. Approval of November 29, 2017 Draft Minutes – Motion to approve by Steve McMahon. Seconded by Jacques Franco. Passes unanimously 8-0, 2 absent.
   B. Approval of November 29, 2017 Special Meeting Draft Minutes – Motion to approve by Mike Adams. Seconded by Jeff Mischkinsky. Passes unanimously 8-0, 2 absent.

6. **Regular Items**
   A. **Citywide Fiber Optic Network Feasibility Study**
      Recommended Actions:
      i. Receive Updates from Draft Report Subcommittees and Staff
      ii. Continue discussion of Subcommittee and Task Force Member Comments
      iii. Continue Identifying Additional Information/Revisions Needed to Complete Preliminary Report
iv. Review Process and Time Frames

v. Next Steps

Chair, Chris Clements summarized conclusions of conference call with CCG Consulting (call summary distributed).

Question raised about benefits of phasing, and example communities Task Force could contact. Consideration of broadband access in update of Core Area Specific Plan underway also raised.

The Task Force discussed the challenges of obtaining potential penetration data, particularly for multiple dwelling units.

BATF discussed changes to report executive summary that could assist understanding of what report findings represent (e.g. use of very conservative assumptions in the analysis); and expanding discussion of next steps to include:

- Determining penetration rates for single family, multi-family and commercial/research park areas of the City;
- Phasing options/benefits;
- Financing options;
- Partnerships.

The Task Force confirmed interest in additional sensitivity analysis to see how results from using less conservative “better case” model assumptions would compare. By consensus, the Task Force requested CCG Consulting:

"Conduct an Additional Financial Model Sensitivity Analysis – to select best financial model option for Davis and changes to key variables to show how results of using “better case” model assumptions compare. Provide summary of proposed model and model inputs in advance, and model results as soon as available."

The Task Force discussed broadband as a “public good” and broader public benefits broadband can provide a community, including:

- As competitive capitalistic ventures, private providers are not likely to over build, or address/resolve digital divide issues.
- Defining project and access to internet services in the realm of a public good, providing substantial public benefits, are other justifications to pursue a fiber project.
- City network would provide a common platform, level of competition, and public accountability that will not exist in the marketplace without City action.
- Root goal is to have internet access at a competitive price, provide some choice and address digital divide issues.
- Cost/benefit analysis, including economic value and broader benefits gained by access to broadband.
- Municipal benefits of broadband competition.
7. Task Force and Staff Brief Communications
   A. Agenda Planning and Long Range Calendar - confirmed Jan. 24, 2018 as next meeting date. Requested brief informational item for preview of COS Systems broadband subscription tool at end of next meeting agenda
   B. Community News
   C. Recommended Reading

8. Adjourn - Motion to adjourn by Steve McMahon. Seconded by Carolyn Stiver. Passes unanimously, 8-0, 2 absent. Meeting adjourned at 8:33 p.m.

The Task Force (TF) is asking the questions below to fully understand the basis of the results from the financial models evaluated in the study, in order to discuss what changes or additional information is needed to complete the Draft Report.

As a follow-up to the call, can you provide specific information about all model assumptions, and highlight which ones contribute most to high construction and operation cost estimates? (If already in report, where to find them? Can all assumptions be consolidated and summarized in one place? )

Discussed request and importance of providing an expanded stand-alone Executive Summary that could serve as the primary public review document to help community members understand how the study’s bracketed approach and meaning of key findings inform potential next steps in this process. The summary would identify key assumptions, and make the basis, intent, and outcome of these conservative assumptions very clear. Depending on results from a “better case” model discussed below, the summary could demonstrate how modest changes in assumptions could affect viability of a fiber network. The summary should also highlight the broader integral and interrelated benefits derived from access to a community fiber network (environmental, economic, educational, health & welfare, emergency response, resource management, social justice, digital divide etc.).

Can you also select the most probable scenario for a Davis network and how you would use that to model a few situations where the cost of the service is varied? See response to last question below.

Fiber Network Costs

- Why is it necessary to run fiber down both sides of the street?
  Density of number of premises on the street, number of borings needed across the street, and potential impact this could have on utilities and trees make it more practical and cost effective to add a second fiber line.

- What assumptions are contributing to overall costs of electronics?
  The costs of units assumed to connect to the houses and to the hubs can range from $90-200, and have been engineered to use the cheapest. We do proposing using G-Fast for the MDU’s because it is cheaper.

- What labor costs are assumed for construction & operation estimates for the fiber network?
  Construction cost estimates are not broken down, but are based on current verified industry estimates for cost per mile. Prevailing wages were incorporated into the cost per mile by verifying costs per mile with firms doing work subject to this requirement. The cost per mile approach is typical for this industry.

- What changes could be considered to lower costs of installing the network and electronics and costs of operating the network?
  One possible way to save 30-40% on installation costs would be to use a shallow 3” deep trenching option, where you trench across the sidewalk. This approach is problematic and not recommended because it presents ongoing issues with need to repair fiber that is easily cut during other maintenance activities.
Figuring out a way through some type of partnership, to exclude installation of the drops from prevailing wage requirements could also reduce costs.

Penetration Rates
- Can you explain basis of assumed penetration rates and how they impact time needed to reach a “cash positive” status?
- Question raised about how realistic the multi-family dwelling unit penetration rates evaluated are. What minimum multi-family penetration rate should be targeted for a Davis network to be a viable?

Conducting a customer survey was included as an option as part of the feasibility study scope, and is a recommended next step, to obtain data that can help answer these questions for both single family homes and multi-family dwelling units in Davis. The study models test an assumed range of penetration rates (30%, 50%, 60%). You would only use a COS tool to conduct a market survey when you are ready to build and are ready to sign-up subscribers.

Phasing
- Can you provide examples of cities similar to Davis that have implemented successful phased fiber network projects?

Yes, but unfortunately it won’t be a big list. Palm Coast FL. is a similar sized City to reach out to. They have some different issues than Davis, such as rapid growth and sprawl, but they also share issues like having a lot of MDUs.

(Per their web site the City of Palm Coast is offering availability of its high performance fiber network “for business and commercial use as an economic development incentive to create business opportunities for private sector service providers, lower the cost of telecom and broadband for local businesses, and to help attract new businesses and job opportunities to the City.” http://www.palmcoastgov.com/fibernet)

Staff questions:
- Wouldn’t any business financial model based on financial models assuming some increases in cost but no increases in revenues over a 25 year period fail? Is it reasonable to test what min. service rate increase would make a difference in viability?

(Report cites private broadband providers are considering significant increases in broadband prices, and models include a minor annual % increase in labor costs, but do not incorporate any future broadband rate increases over a 25 year time frame. It also acknowledges that raised rates could improve the financial forecasts significantly (p.g. 136-137). Report also later states that predictions of cost are probably conservatively high (p.g. 147).

Study models do take a conservative (worse case) approach. BATF & CCG could confer on the most probable model for Davis and the specific model assumptions to modify (e.g. some reasonable increase in service costs & revenue generation over time) to test results of one “better case” fiber network financial model.
What order of magnitude of partner participation (expanded penetration rate) would be needed from school district, university, water districts, etc. to make a measurable difference in viability of a Davis community network?

If a City fiber network existed the school district or university could contract with that instead of another private sector provider and contribute to the overall penetration rate. However, this is not expected to be substantial enough to make a significant difference in overall viability of the network. Sufficient community penetration rates would still be needed.