At the August 3rd, 2010 County Council Meeting, discussion of the scope of the Capital Improvement Project (CIP) for the Community Broadband Network Study occurred.

During the FY 2011 budget hearings, Council approved the following motion: That the "Network Expansion" Capital Improvement project be renamed to a working title of "Community Broadband Network" and that the purpose of the project be redefined to "provide open and advanced broadband communications access to all Los Alamos County citizens and institutions." And further that staff be directed to initiate a new Phase 1 CIP application so that this project will go through and follow the CIP process. In accordance with this direction, staff is preparing a phase 1 CIP application for a Community Broadband Network.

Staff brought forth the agenda item for the purpose of seeking input from Council about the proposed scope of the broadband network and the scope of the work.

In preparing the study, staff is assuming the following:

1. The purpose of the project is to provide an open and advanced broadband communications access to all Los Alamos citizens and institutions.

2. This purpose will be accomplished through building a fiber to the premise (FTTP) network.

3. The general concept of the fiber backbone as defined in the previous "Network Expansion" study project will be accepted and used and that work will not be re-performed.

4. New conceptual design work will start with the previous study and build outward from there.

5. The target speed will be 1 gigabit (Gbps)

6. The County will, generally, not be an overall content provider nor, generally, a service provider. Private business services and content will be provided by private businesses (e.g. phone, cable, internet, gaming, etc). Some County service may be provided through the new network infrastructure.

7. Coordination with any potential radio project will occur.

Because of all the past work performed by the County studying this concept, staff proposed a relatively narrow scope to acknowledge and make efficient use of all the prior work, where practical, and to simplify as much as possible the additional work associated with business planning as well as the public involvement processes. Staff anticipates that developing the business model and plan will be the lengthier and more complex portion of the study.

The deliverables that are expected at the end of the phase 1 study include the following: Expanded complete conceptual physical design with the following parameters and options: 1. Target 1 Gbps or higher FTTP available (1 Gbps reflects speed of local fiber network available, does not reflect speed to internet available)

2. FTTP [alternatives for a) to the meter and b) to the curb]

3. Active-Passive Hybrid options

4. Network Operations Center (NOC) - Evaluate Location Alternatives: Parcel A6, near Fire Station 6, Lavy Lane and DP road.

5. Portal Multi Provider Based - - Business model/plan

6. Explore existing fiber infrastructure partnerships as possible partial physical solutions;

7. New market surveys to get current data regarding actual levels of citizen and business interests;

8. Attempt to obtain Provider Commitments (for example providers like Qwest, Comcast, Tewa, Black Rock, LA Comnet, etc.) to add more realistic substance to the business plan (rather than assuming if we build it, they will come.)

9. Attempt to obtain Private network use commitments (for example LAPS, LANL);

10. Business Plan (operation, models (point to point, portal/customer, service provider (not of network services, but of own business), maintenance, pricing, staffing);

11. Financial Plan (capital and operational);

12. Project budget;

13. Legal considerations.

Differences from the previous phase 1 study are as follows:

1. The scope has changed from just a fiber backbone foundation that could be expanded to a complete fiber to the premise network.

2. The scope has changed from building an asset for just the government's needs to building an asset that provides a completely new infrastructure improvement to all citizens.

3. The scope has changed from expanding the County's network to initiating an entirely new infrastructure service to the community that the County currently does not provide.

4. The target speed has changed from 100 Mbps to 1 Gbps.

5. The scope no longer includes a County radio system.

6. The 1st phase 1 study did not address market demand and did not develop business and finance plans. The new study will address these issues.

7. The 1st phase did not include any significant public information and involvement plan.

Councilor requested that this study include

a wireless or partially wireless function for Wi-Fi areas in certain public buildings

that the target speed would be 1 gigabit (Gbps) and the parameters indicate a minimum of 1 gigabit (Gbps) or higher.

It be tied into the regional project

The County should explore the purchase the infrastructure through negotiations and existing fiber infrastructure partnerships as possible partial physical solutions.

The results of Phase 1 were brought to Council in June, 2009. Clear guidance about moving forward was not given at that time. During the 2011 Budget Hearings staff received clarification of the direction and change in the scope of the project. Mr. Lynne replied that the direction from Council to conduct this study came before the Council action on adopting the new CIP process. Councilor Gibson stated the deliverables provide a comprehensive list, if Council treats those as a Phase 1, what is left to do in Phase 2. Mr. Lynne responded presumably more of the work is involved in decisions, evaluation to the business models since there are more alternatives, the actual physical design work. Further discussion will need to be held for the business component which is dependent on feedback from providers/financing decisions. Public Comment Councilor Wismer opened the floor to public comment. Mr. Jim Hall, 129 Monte Rey Drive, spoke in support of the project study, adding an analysis of acquiring Comcast infrastructure as part of an incremental 5 – 10 year move to fiber to the home. He stated information based jobs that depend on telecommunications in Los Alamos‟ future is the responsibility of the Council. Mr. Dale Carstensen, 1504 South Sage Loop, indicated that he would not support an all wireless connection, as there is interference that will have to be dealt with. He further stated Los Alamos needs a better connection from Albuquerque. Mr. Ken Milder, 1082 Big Rock Loop, spoke in support for this project to move forward with this project. He felt a wireless connection should also be part of the project. He added we shouldn‟t confuse the mix or need of the regional transmission telecommunications versus local, they are two different projects that the County should pursue. Councilor Gibson moved, seconded by Councilor Wheeler, that Council endorse the scope of the Community Broadband Network Study as identified by the deliverables and business plan model sections of the staff report. Councilor Gibson stated what the staff outlined is a good scope of work to get started. Councilor Wheeler concurred with Councilor Gibson that this is a good place to start and staff has provided good set of guidance that should be adopted.

Moving forward to Phase 2 without the regional backbone connection to Santa Fe or Albuquerque will not provide significantly faster internet speed/connectivity. He felt it was critical to have the connectivity with regional partners and pueblos communities. Councilor Bowman asked if the regional connection is being pursued. Mr. Lynne responded yes, but it is a separate project from this one. Councilor Bowman stated she hoped this project doesn‟t create a loss for the County. Mr. Lynne stated there is not a presumption and not a stated assumption about what the financial goals are, Council may consider options in terms of financial goals and business models. The motion passed 6-1; Councilor Chiravalle opposed. Councilor Gibson moved, seconded by Councilor Wheeler, that Council considers this a Phase 2 conceptual design study whether it is overseen by the CIP Committee or not. Councilor Gibson stated staff should not go back to do another Phase 1 study to support a further study called Phase 2. Councilor Wheeler concurred with Councilor Gibson. Proceeding with Phase 2 will achieve public input through the process and is the appropriate step to take at this time. Councilor Chiravalle felt moving this project to Phase 2 is premature; and felt it was far more prudent to take the resources and focus on the regional fiber network. Councilor Stover asked why wasn‟t Phase 2 done in late April/May. Mr. Lynne stated there was a change in the scope, from a County network ring to providing fiber network infrastructure to every premise which was a very significant change in the scope of service.. Councilor Stover asked why does the motion include the statement to go through the committee or not. Councilor Gibson stated the CIP committee may not have the technical expertise of this project. It is possible that a separate taskforce with expertise in this field may need to be considered. Councilor Phelps spoke in support of the motion. Councilor Bowman stated this was an important study and was uncomfortable not adhering to the CIP process, she felt the community needs to provide input. The motion passed 5-2; Councilors Bowman and Chiravalle opposed. Councilor Gibson moved, seconded by Councilor Phelps, that planning be based on a target date for project competition of June 30, 2015. Councilor Gibson stated this project has a time frame missing and this essential infrastructure may spur the private sector on. Councilor Phelps concurred with Councilor Gibson. Councilor Stover stated the timing may set-up unrealistic expectations and hoped the study would provide for an actual timeframe. Councilor Chiravalle spoke against the date being arbitrary and felt this infrastructure in place will draw in economic development. Los Alamos County 08/3/2010 - Minutes 14

Councilor Wheeler felt the date is arbitrary and should be determined by the Phase 2 study. Councilor Stover called the question. The motion failed 3-4; Councilors Chiravalle; Stover; Wheeler and Bowman opposed. Councilor Gibson moved, seconded by Councilor Phelps, to direct staff to complete the Phase 2 Study or as much of it as possible and report to Council by the end of the calendar year. Councilor Gibson stated everything considered so far was included in the motion on April 22nd and another part was the Phase 2 study to be completed by October. He stated it will be a challenge but would like to see as much as possible in that timeframe. Councilor Phelps stated there should be some schedule, definition or goal for this project. Councilor Bowman asked if staff felt it was possible to conduct a complete and thorough study by December. Mr. Lynne responded that it is unlikely to be completed by December. Councilor Bowman stated she was concerned with „railroading the staff‟ to make decisions or bring forth information that is not complete. She stated it is an important project and would like to see it succeed with the correct information. *Councilor Stover called the question. Seconded by Councilor Wheeler.* The motion failed 2-5; Councilors Bowman; Chiravalle; Stover; Wheeler and Wismer opposed. Councilor Gibson moved, seconded by Councilor Phelps, that management responsibility for the study and potentially for project execution is assigned to the Department of Public Utilities. Councilor Gibson stated that delivering a service to every property in the community is a project that the Utilities Department could handle. Councilor Phelps stated another motivation is the Utilities Departments demonstration that they can effectively handle this type of project. Councilor Chiravalle indicated he would not support assigning this project to the Utilities Department, rather this is a project for the IT Department. Councilor Bowman concurred with Councilor Chiravalle. Councilor Wheeler stated the decision belongs to the County Administrator as to where the project assignment is placed. Mr. Autio explained that Section 500 of the Charter outlines the responsibilities of the Utility Department, limited to gas, electric and water service. He felt the assignment may require a Charter Amendment. Mr. Mortillaro explained the project will come from the general fund and needs to remain in the prevue of the general fund, until the Charter is amended, it needs to remain in this budget operation. The motion failed 2-5; Councilors Wheeler; Wismer; Bowman; Chiravalle; and Stover opposed.

Councilor Bowman moved, seconded by Councilor Stover, Council add to the study Los Alamos County 08/3/2010 - Minutes 15

whether the system can be wireless or partially wireless. Councilor Bowman stated she felt this technology needs to be explored and find information on whether this option may decrease the cost, it should be explored. Councilor Stover asked why staff did not include the wireless option? Mr. Lynne explained the previous studies have all recommended complete fiber, we were trying to simplify and narrow the scope of the study to move faster and make it easier to understand. Councilor Phelps stated there can be a place for wireless supporting component of the fiber system; however, not the primary choice. There are some communities especially where the coverage area is large and not much infrastructures exists, which would require more of a wireless system. However, this is not the case with our application. He suggested if the motion direct limited uses of wireless, which could then be a viable alternative as part of the fiber system. He stated he is not in support of the motion. Councilor Gibson stated the backbone needs to have fiber to allow for the bandwidth. Wireless can play a role but cannot be the substitute for a core system. The motion failed 2-5; Councilors Gibson; Chiravalle; Stover; Wheeler and Phelps opposed.

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6. Provide wireless or partially wireless function for Wi-Fi areas in certain public buildings

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8.   It be tied into the regional project.

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