PERSON COUNTY BOARD OF COMMISSIONERS MEMBERS PRESENT

MARCH 17, 2014 OTHERS PRESENT

Jimmy B. Clayton
Kyle W. Puryear
B. Ray Jeffers
Frances P. Blalock
David Newell, Sr.

Heidi York, County Manager

Brenda B. Reaves, Clerk to the Board

The Board of Commissioners for the County of Person, North Carolina, met in regular session on Monday, March 17, 2014 at 9:00 am in the Person County Office Building Auditorium.

Chairman Clayton called the meeting to order.

A **motion** was made by Commissioner Newell and **carried 5-0** to immediately relocate the regular scheduled meeting back the Board's usual meeting room 215 in the Person County Office Building due to the fact that Local Government Day has been rescheduled to April 21, 2014.

Chairman Clayton reconvened the meeting to order at 9:03 am in the Board's usual meeting room 215 and led invocation. Vice Chairman Jeffers led the Pledge of Allegiance.

DISCUSSION/ADJUSTMENT/APPROVAL OF AGENDA:

Chairman Clayton stated Recognition of Local Government Day could be removed from the agenda and requested that an item be added to the agenda to take action to change the location of the April 21, 2014 Board meeting to the Auditorium.

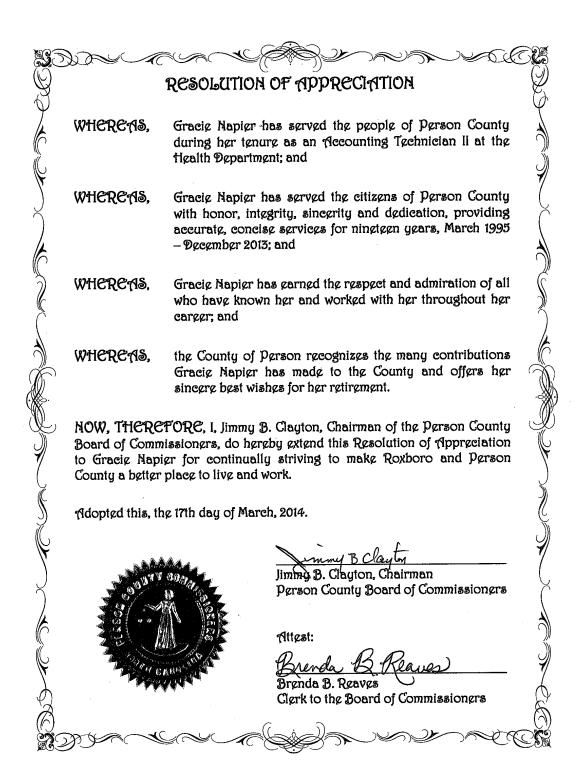
A **motion** was made by Commissioner Blalock and **carried 5-0** to remove Recognition of Local Government Day from the agenda and to add an item to change the location of the April 21, 2014 Board meeting to the Auditorium.

Chairman Clayton requested to add a Closed Session for acquisition of property to the agenda.

A **motion** was made by Vice Chairman Jeffers and **carried 5-0** to add a Closed Session to the agenda and to approve the agenda as adjusted.

RESOLUTION OF APPRECIATION FOR RETIREE:

Chairman Clayton read and presented the following Resolution of Appreciation to Person County retiree Gracie Napier.



INFORMAL COMMENTS:

The following individual appeared before the Board to make informal comments:

Mr. John Hill, Director of the Arts, Parks and Recreation Department took the opportunity to recognize two groups of athletes. Mr. Hill stated Person County recently hosted the youth state basketball tournament. Mr. Hill congratulated the Person County 10 and under youth girls' basketball team coached by Will Dunkley and Terell Holloway as the state champs by winning five games. Team members include Karter Hawkins, Jewell Holloway, Madison Dunkley, Skylah Parker, Aaliyah Jones, Talecia Farrah, Lillie Mac Davis, Mariah McCowan, Asheton Evans, and Jakeya Paylor.

In addition, Mr. Hill congratulated the Person County Special Olympics team members playing basketball in Johnston County. Person County's 5-on-5 team coached by Craig Watson won a gold medal. Gold medalist team members include Sean Allen, Marquis Bailey, Casey Collins, Fred Hester, Jermaine Long, Tony Wade and Dillion Watson. Person County's 3-on-3 team coached by Angela Winstead received a silver medal. Silver medalist team members include Carl Buehler, Edward Davis, McArthur Edwards, Joshua Harris, Alvin Watkins, and Bobby Winstead.

DISCUSSION/ADJUSTMENT/APPROVAL OF CONSENT AGENDA:

A **motion** was made by Vice Chairman Jeffers and **carried 5-0** to approve the Consent Agenda with the following items:

- A. Tax Adjustments for the month of February 2014
 - 1. February 2014 tax releases
 - 2. February 2014 NC Vehicle Tax System pending refunds

UNFINISHED BUSINESS:

REVIEW OF BOARD APPOINTED BOARDS AND COMMISSIONS:

County Manager, Heidi York recalled at the Board's January 6, 2014 meeting, two new commissions were created: the Youth Council and the Environmental Issues Advisory Committee noting that during the Board's discussion, the manager was directed to review all of the Board's appointed boards and commissions to determine whether there might be an opportunity to reduce the number of boards and commissions particularly if they are inactive. Ms. York stated there are approximately 40 boards and commissions that the Board actively participates or makes appointment. Ms. York stated the boards, committees, commissions that are not active and could be considered for elimination include:

- Mayo Lake Advisory Committee
- Roxboro/Person County Human Relations Commission
- E-911 Committee
- Mentors Advisory Board
- Roxboro-Person County Economic Development
- Solid Waste Advisory Committee

A **motion** was made by Vice Chairman Jeffers, and **carried 5-0** to remove (deactivate) from the roster at this time the following: Mayo Lake Advisory Committee, E-911 Committee, Mentors Advisory Board, Roxboro-Person County Economic Development and the Solid Waste Advisory Committee.

Ms. York stated the two newest commissions (Youth Council & Environment Issues Advisory Board) require the Board to decide on the appointment process, term limits, frequency of meetings and the charge for the work of the committees. Ms. York provided the following description for a charge for each.

- -Youth Council: to involve and engage youth in local government activities and decision making, while training future community leaders.
- -Environmental Issues Advisory Committee: to protect air, soil, and water resources in Person County

Vice Chairman Jeffers and Commissioner Puryear, both volunteering to serve on the Youth Council noted they would work together on developing an application process to engage students from the local high schools and other at-large members as well as other official community leaders to participate to bring back to the Board of Commissioners at its second meeting in April for consideration.

Commissioner Blalock stated citizens interested in the Person County Environmental Issues Committee must have a desire to protect Person County's environment and be willing to talk to the citizens within their township as well as visually survey their township and report their findings to the environmental group. As originally approved, there will be an opportunity for each township within the County to be represented. Commissioner Blalock requested the Clerk to the Board, Brenda Reaves to proceed with advertising with the interested citizen's applications to be brought before the Board for consideration.

BOARDS AND COMMITTEES APPOINTMENTS:

Clerk to the Board, Brenda Reaves presented interested citizens' applications for Board consideration for appointment related to current vacancies on county boards and committees. The highlighted boards denote a competitive board and are eligible for the informal interview process if the Board so desires. Ms. Reaves asked the Board to direct the Clerk to organize and inform the applicant(s) of the informal interview date as set by the Board or consider waiving the process. Ms. Reaves asked the Board to nominate the applicants for appointment, if appropriate.

A Animal Services Advisory Committee

Unspecified Term: Animal Protection Services President designated seat

1) Cheryl Peters (current President for APS) requested appointment

A **motion** was made by Commissioner Puryear, and **carried 5-0** to appoint Cheryl Peters to the Animal Services Advisory Committee in her capacity to represent as the President of Animal Protection Services. Commissioner Puryear requested the County Manager to contact the City Manager related to the designated seat on the Animal Services Advisory Committee to find out if the City intends to have representation or if the seat is vacated that the committee may recommend appointment to fill with another representation.

Board of Adjustment

3-Year Term: 1 position for an alternate – no applications received.

Ms. Reaves brought to the Board of Commissioners' attention the memo included the Board packet from the Board of Adjustment at their February 5, 2014 meeting requesting the Board of Commissioners (via memo from Planning staff) to appoint an alternate member noting the approval of a variance requests requires four affirmatives votes and the Board of Adjustment is operating with five members. The Board of Commissioners took the information under advisement.

C Home Health and Hospice Advisory Committee

- 3-Year Term: 1 position representing the hospital (Person Memorial Hospital)
- 1) Pamela West Williams (employee at PMH) requested appointment

Ms. Reaves stated this position has been vacant since December 2012.

A **motion** was made by Vice Chairman Jeffers, and **carried 5-0** to appoint Pamela West Williams to the Home Health and Hospice Advisory Committee to serve as the local hospital representative for a 3-year term.

D Mayo Lake Advisory Committee

- 2-Year Term; 3 positions available
- 1) Charles Sever requested appointment

The Board of Commissioners took action to deactivate the Mayo Lake Advisory Committee this date therefore the Clerk to the Board will provide notice of such action to the applicant.

E OPC Community Operations Center Advisory Board representing Person County Unexpired term to 6/30/15: 1 position available

1) Janet Sowers requested appointment

<u>Duties:</u> Provide input related to the available resources for Mental Health, Developmental Disabilities and Substance Abuse Treatment Services for people of all ages to eliminate reduce or prevent the disabling effects of mental illness. This Board meets in Chapel Hill every second Monday of each month from 7:00 – 9:00 pm.

It was the consensus of the Board to hold consideration of appointment to the OPC Board to a later date at the request of Chairman Clayton.

F Planning Board

1 position available for a 3-Year Term and 1 position with an unexpired term to 6/30/15

1) Lynn Jones requested appointment

Ms. Reaves brought to the attention of the Board of Commissioners the memo in the Board packet from the Planning Department requesting the Board to appoint two members to fill the current two vacancies or consider as an alternative to reduce the Planning Board from seven to five members.

It was the consensus of the Board of Commissioners to hold the informal interview process and to direct the Clerk to the Board to inform the applicant, Lynn Jones. The informal interview process was scheduled by the Board of Commissioners to be held at 6:30 pm on April 7, 2014.

G Roxboro/Person County Human Relations Commission

- 3-Year Term; 4 positions available for county residents (all county seats are vacant)
 - 1) Robert Bridges requested appointment

The Board of Commissioners took action to deactivate the Roxboro/Person County Human Relations Commission this date therefore the Clerk to the Board will provide notice of such action to the applicant.

NEW BUSINESS:

SUMMARY OF MEETING WITH FORMER CONGRESSMAN BRAD MILLER:

Commissioner Blalock informed the group that former Congressman Brad Miller requested a meeting through the Mayor of Yanceyville to come to Roxboro on Wednesday, March 5th to meet with those working on the Dan River intake project. Commissioner Blalock noted this was concerning the recent coal ash spill and some actions former Congressman Brad Miller is planning to take to hold Duke Energy accountable for this spill and its potential contamination of a drinking water source.

Commissioner Blalock stated the meeting was held in the City Council Room with Brad Miller with representatives from Yanceyville, Roxboro, and Person County. Mayor Newell, Commissioner Blalock, and staff were present for the City of Roxboro and Person County. The general discussion was initiated by Mr. Miller and his intent is to hold Duke Energy to cleaning up the spill without passing the expense on to customers.

Commissioner Blalock recommended to the Board that a joint meeting with the City of Roxboro is warranted to further discuss the Dan River project and the affects projected by environment experts and Tanya Evans, District Manager with Duke Energy. Vice Chairman Jeffers suggested the Board tour the Duke Energy sites.

Commissioner Blalock requested the Boards' permission to attend a conference in Raleigh related to environmental pollutants noting she would report back to the Board with information learned. Chairman Clayton stated Commissioner Blalock did not need the Board's permission and if she was willing to attend and bring back information, they would happy for her to do that.

Commissioner Puryear stated Duke Energy is the largest employer in Person County bringing one-third of the tax revenue that he advocated for the Board to focus on the facts. Vice Chairman Jeffers agreed with Commissioner Puryear noting the County needs to know the facts and the locations of the ash ponds within the County. Commissioner Newell added that all information is needed as the County considers laying pipe to draw water from the Dan River.

Chairman Clayton asked the County Manager to contact the City Manager and Duke Energy for potential meeting dates for a special joint meeting.

REPORT AND RECOMMENDATIONS FROM THE HELENA STEERING COMMITTEE:

County Manager, Heidi York told the Board that Dr. Walter Bartlett, Piedmont Community College (PCC) would present the report and recommendation from the Helena Steering Committee.

In August 2013, the Board of Commissioners authorized a Helena Steering Committee to study and develop recommendations for the future use of the Former Helena School Property. These recommendations were to also include community input into this important planning process.

The Steering Committee has met bi-weekly since September. The Steering Committee has created a webpage and media releases, conducted a successful community survey, developed a speaking series, and held a community forum, in an effort to seek community feedback and input. Members of the Steering Committee included:

Dr. Walter Bartlett, PCC President
Mike Dossett, PCC
Jim Thomasson, citizen
Paul Hair, citizen
Sharon Slaughter, citizen
Phil Jackson, citizen
Cathy Klovski, citizen
Chairman Jimmy Clayton
Commissioner Frances Blalock
Board of Education Member Margaret Bradsher
Heidi York, County Manager
John Hill, Recreation, Arts, & Parks Director
Erin Hill, Director of the Cultural Arts Program at the Kirby
Ray Foushee, General Services Director
Christy Bondy, Library Director

The Committee has completed their objective to develop recommendations and solicit community input and are ready to present the committee's recommendations outlining the next steps in moving this project forward.

Dr. Bartlett provided the following presentation:

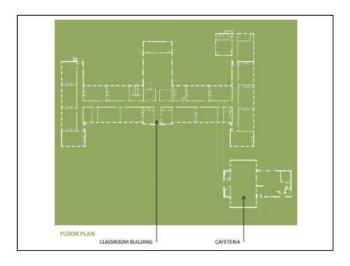
3/17/2014

Report from the Helena Steering Committee

March 17, 2014







Steering Committee

- Authorized by Board of Commissioners to develop recommendations for future use
- Met bi-weekly since September 2013
- Approx. 15 members: citizens, local government staff & officials, educational officials.
- · Developed 4 utilization goals:
 - -business rental opportunities
 - -community specific uses
 - -service based uses
 - -educational uses

Current Uses

- Recreational Activities: RCS Sports, field rentals, sports clinics, basketball, gym rentals, soccer, jogging/walking, etc.
- Activities: Recreation Department, Church & Community Activities, Community Fund Raisers, etc.
- · Piedmont Community College classrooms
- Public Safety Substation EMS Station and Sheriff Station (May 2014)

Utilization: Primary Purposes

- Cultural Arts & Community Center
 - -Person County Welcome Center
 - -Extension of the Person County Library
 - -Facilities for family reunions
 - -Weddings
 - -Community information events
 - -Concerts
 - -Theatrical plays
 - Town hall meetings
 - Permanent meeting space for non-profit groups

Utilization: Primary Purposes

- · Enhanced Early College
 - -Serving grades 6-13
 - -Science, Technology, Engineering, Arts, and Math (STEAM).
 - -Merging technical coursework with hands-on training in cultural arts and business
 - -Graduates receive both a high school diploma and an associate degree from Piedmont Community College

Utilization: Primary Purposes

- Retail Center
 - -Rent-Based Businesses
 - -Daycare
 - -Barber Shop
 - -Café / Restaurant

Utilization: Secondary Purposes

- · Farmer's Market
- Recycling Center
- Senior Living Community
- · Retail Center
- Timberlake Museum
- Flexible Trades and Industry Training Space

Community Survey

- Both electronic and paper versions were available
- · Surveys distributed in Dec. closed Feb.
- · Received 443 responses
- Overwhelming support for Early College (65% of respondents ranked it as top choice)
 - Followed by cultural arts community center as second priority; retail center ranked third

Speaking Series

Presentations were given by members of the Steering Committee to civic groups, churches, women's club, etc.

Also created a webpage and media releases

Community Forum

- Held on Saturday, January 25th 11:00am-1:00pm at Helena Complex
- Approximately 30 attendees
- · Tours, presentation, and feedback

Recommendations

Pursue the Enhanced Early College Initiative:

- grades 6-13
- STEAM curriculum: science, technology, engineering, arts, & math
- graduates earn both HS diploma and associate degree from PCC

Next Steps

- Pursue grant funds as well as legislative support
- Plan flexibility to accommodate future uses: community, arts, recreational, etc.
- Develop an educational leadership team to carry out next steps: PCC and PCS leadership

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Dr. Bartlett stated the proposed Enhanced Early College is a public school and would be treated as such through the school system noting funding would be through the state with ADM funds and potential grants. Dr. Bartlett stated the leadership team would gather information from the other 71 counties that have implemented such a program and actively seek and identify the students that would receive the most benefits through teacher referrals and testing results.

At this time in the Board meeting, Commissioner Blalock requested Board action to excuse her at 9:55 am for the remainder of the meeting.

A **motion** was made by Commissioner Newell and **carried** to 4-0 to excuse Commissioner Blalock from the remainder of the meeting as requested.

Vice Chairman Jeffers suggested, as an option for consideration, a special election for the voters to voice opinion of a quarter-cents sales tax as a possible funding source for the proposed Enhanced Early College at the former Helena School site.

It was the consensus of the Board to authorize an Educational Leadership Team to continue the next steps, as presented.

Chairman Clayton suggested a tour of an implemented Enhanced Early College to be very helpful at this point in the project.

Vice Chairman Jeffers announced a NACo grants clearinghouse website for NACo members that will assist in finding appropriate federal, state and corporate grants.

KIRBY CULTURAL ARTS COMPLEX REQUEST FOR ADDITIONAL SOUND EQUIPMENT UPGRADES:

Arts, Parks & Recreation Director, John Hill told the group that on December 6 & 7, 2013, the Person County Arts Council, Fabulous Feet and Christi's Dance Studio presented 'Dancin' through the Holidays'. This show came about after discussion between the three groups about the state of the sound equipment in the Kirby Cultural Arts Complex. The Dance Studios worked for several months and put many hours of time into developing the program that was presented in December. The shows served as a fundraiser for the Person County Arts Council with the intent to put the money toward the Kirby Sound Equipment that can be used by the dance studios, Arts Council and any other renters of the facility. There were 355 people in attendance and \$4,510 was raised.

County Manager, Heidi York noted in Fiscal Year 2012-2013 the County spent over \$17,000 to upgrade the sound equipment at the Kirby. Additional Kirby upgrades proposed include \$17,000 during Fiscal Year 2013-2014 for carpeting; and in Fiscal Year 2014-2015 budgeted funds include \$75,000 for new chairs and \$335,562 for a new roof.

Mr. Hill introduced Mr. Michael Slaughter, an Arts Council representative to further describe the equipment and pricing for the additional sound equipment upgrades. Mr. Slaughter stated a total of \$27,375 is needed to upgrade sound equipment and add sound paneling to the facility. Taking into account the \$4,510 raised in December, the county allocation requested is \$22,865. Mr. Slaughter noted the \$17,000 in Fiscal Year 2012-2013 was expended to replace four wireless headsets with \$10,000 to replace the main speaker system. The new request for additional sound equipment will be to order build-to acoustic treatment for the facility and the replace four additional headsets.

A **motion** was made by Commissioner Puryear and **carried 4-0** to budget in the Fiscal Year 2014-2015 budget \$22,865 for the additional sound equipment for the Kirby as presented.

DISCUSSION FOR A JOINT MEETING WITH THE CITY OF ROXBORO:

Commissioner Puryear requested Board consideration for scheduling a special joint session with the City of Roxboro related to planning together for the Senior Center.

It was the consensus of the Board to direct the County Manager to contact the City Manager for a possible April 2014 joint meeting.

AMENDMENT TO THE LEASE AND FIXED BASED OPERATOR AGREEMENT AT THE PERSON COUNTY AIRPORT:

County Manager, Heidi York reminded the Board that in May 2012, Person County amended the Lease and Fixed Base Operator Agreement with Red Mountain Aviation to provide financial assistance during the struggling economy. Red Mountain Aviation has served as the Fixed Base Operator for Person County Airport since March 1, 2009. The Board of County Commissioners, working through the recommendation from the Person County Airport Commission, granted two, one-year amendments to the Lease and Fixed Base Operator Agreement. The amendment provided the following concessions:

- Person County assumed responsibility for all utilities (approximately \$19,000 annually)
- Person County assumed the Airport's general liability insurance (approximately \$6,000 annually)
- Restructured the fuel flowage fee to a flat 6 cents per gallon rather than a tiered fee structure
- Person County waived one month's rental payment (\$7,719)

Ms. York stated the estimated value of these concessions is approximately \$33,000. Ms. York told the Board that rather than continuing to provide one year extensions, the Airport Commission requests that this Amendment be extended through the duration of the Lease and Agreement, expiring February 2019.

Vice Chairman Jeffers asked if the Airport Commission has considered adding more hangers as a revenue source. Ms. York noted the Airport Commission has a capital improvement plan request for additional hangers at an estimated cost of \$800,000 to replicate the same sized facility. It was not known what the return on investment would be compared to cost. Vice Chairman Jeffers advocated for more marketing of the airport to enhance the potential for increased revenues.

A **motion** was made by Commissioner Newell and **carried 4-0** to extend the Amendment to the Lease and Fixed Based Operator Agreement at the Person County Airport through the duration of the Lease and Agreement which expires February 2019 as recommended by the Airport Commission.

PUBLIC SAFETY COMMUNICATION SYSTEM ALTERNATIVES:

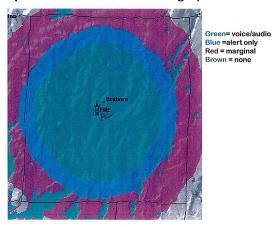
Assistant County Manager, Sybil Tate and Emergency Services Director, Wes Lail presented to the Board the County's existing system deficiencies:

- No pager coverage near county borders,
- VFD communication is unreliable,
- Talking back on hand-held radios is unreliable,
- In-building coverage does not exist,
- Existing system does not meet public safety specifications and will likely fail during a disaster, and
- Current system also has no redundancy (i.e. if the Piedmont Communication tower is disabled during an emergency, there will be no communication).

Public Safety Communication System Options

March 17, 2014

Option #1: Maintain Existing System



Mr. Lail along with Mr. Brett Wrenn, Communications Shift Supervisor presented information about the Simulcast system, its features and the system technology the surrounding counties have in place. See chart below.

Surrounding counties' systems

County	System technology	Tower owner?
Granville County	VHF Simulcast system	3 VIPER towers, 2 water towers, and 1 private tower (480ft)
Rockingham County	VHF Simulcast system	VIPER towers
Alamance County	VHF Simulcast system	3 VIPER towers and a mix of water towers and rooftops
Person County (existing)	existing) VHF Conventional system 1 private tower (340 ft), 3 private towers @ (60-70 ft)	
Person County (proposed)	VHF Simulcast system	1 VIPER tower, 4 county-owned 300ft towers

How is the proposed Simulcast system different?

System	Pager In- building coverage	Talkback In- building coverage	Public Safety Grade	Redundancy
Existing System	Inadequate	Inadequate	No	No
5 Site Simulcast	95% coverage	95% coverage	Yes	Yes

Mr. Lail described the equipment public safety personnel use for transmitting and receiving information: 1) pagers used by fire and EMS personnel that receive alerts only, 2) walkies (portables) as well as mobile radio fixed in vehicles used by fire, EMS and Sheriff's Dept. that alert, receive and transmit information. A short audio recording was played for the group as a demonstration of an actual event noting the difficulty in transmitting and receiving information.

Mr. Lail stated the VIPER system is designed for highway use inoperability across the state noting the VIPER system has different equipment and does not transmit well inside buildings/structures. Mr. Lail and Sheriff Dewey Jones, present in the audience, stated the committee's (on behalf of Person County Public Safety) preference is the VHF Simulcast System with the proposed four 300 ft. towers (in addition to Hill Street Tower) to achieve 95% coverage area.

Ms. Tate stated the Board had asked staff to investigate less expensive alternatives to the proposed 4-tower Simulcast system estimated at \$4.17M. Below are the options:

OPTION #1: Maintain existing system

Staff can continue to use the existing public safety communication system. The Board allocated \$12,000 to fix the existing communication system earlier this year. These repairs will only improve communication between responders and 911, but will not improve pager communications or improve transmissions from 911 to responders.

OPTION #2: Construct a 4-tower Simulcast system

Construct 4 towers (Bushy Fork, Bethel Hill, Mt. Tirzah and Woodland) = \$2.4M (\$600,000 per tower)

Radio Equipment = \$1.65M

Radio Consultant = \$120,000

TOTAL: \$4.17M

(Provides 95% coverage)

OPTION #3: Construct a 3-tower Simulcast system

Construct 3 towers (Bushy Fork, Bethel Hill, Mt. Tirzah) = \$1.8M (\$600,000 per tower)

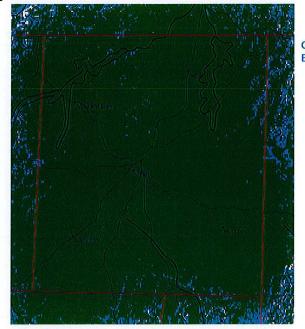
Radio Equipment = \$1.39M

Radio Consultant = \$105,000

TOTAL: \$3.295M

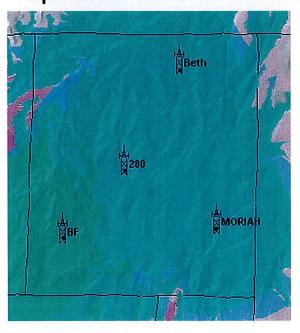
(Provides approximately 80% coverage)

Option #2: Construct 4 towers - \$4.17M



Green= voice/audio Blue =alert only

Option #3: Construct 3 towers - \$3.295M



Green= voice/audio Blue =alert only Red = marginal Brown = none

Limitations

- Reduced coverage
 Project timeline extended, if the BOC desires to construct the 4th tower during Phase II

OPTION #4: Construct a 2-tower Simulcast system

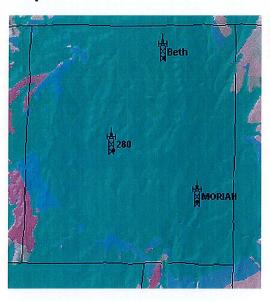
Construct 2 towers (Bushy Fork or Mt. Tirzah, Bethel Hill) = \$1.2M (\$600,000 per tower)

Radio Equipment = \$1.13M

Radio Consultant = \$95,000

TOTAL: \$2.425M

Option #4a: Construct 2 towers - \$2.425M

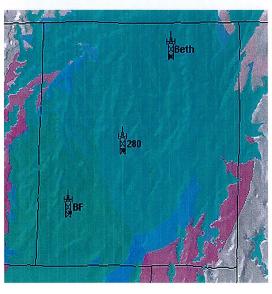


Green= voice/audio Blue =alert only Red = marginal Brown = none

Limitations

- Reduced coverage
- Project timeline extended, if the BOC desires to construct the 3rd and 4th tower during Phase II

Option #4b: Construct 2 towers - \$2.425M



Green= voice/audio Blue =alert only Red = marginal Brown = none

Limitations

- Reduced coverage
- Project timeline extended, if the BOC desires to construct the 3rd and 4th tower during Phase II

The consultant, Mr. Frank Marum of Technology Systems Solutions (TSS Partners), stated he has broken down the cost of the towers further and moved the environmental study forward on the timeline as suggested by the Board in the revised feasibility study.



Public Safety/Broadband Feasibility Study

For Person County, North Carolina

March 6, 14

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1

Objective of the Feasibility Study

Prepare a feasibility study for design and construction of a Public Safety network upgrade as well as a Broadband system to provide service to un-served areas of Person County.

Feasibility

The objectives are achievable with some caveats. There are timeline risks related to the intervals required for completion of Environmental studies for tower sites and the ability to obtain 3 bids for the public safety RFP. Also the Broadband solution will require Microcells that were not included in the RFP response to reach remote areas due to obstruction from trees. Microcells are included in the estimate but vertical assets for the Microcells are excluded.

Estimated Costs

Based on industry experience with similar projects, the following is a summary of the total project costs:

Cost Element	Person County Expected Expenditure
Public Safety	\$4,170,000
Broadband	\$173,785
TOTAL	\$4,343,785

Expected Schedule

Based on recent experience with similar projects, the estimated schedule for Public Safety is 28 months. The Public Safety towers will be available for Broadband after 25 months.



Public Safety/Broadband Feasibility Study

Objective of the Feasibility Study

Prepare a feasibility study for design and construction of a Public Safety network upgrade as well as a Broadband system to provide service to un-served areas of Person County. The study will provide the following:

- An overview of the project;
- Estimated costs;
- Estimated timeline for completion;
- Key assumptions.

Background

The County plans to move forward with upgrading their Public Safety radio network to improve coverage and network reliability. The County has also decided to move forward with a program to bring Broadband service to un-served areas of the County. The Broadband program will utilize the new Public Safety tower sites to bring fixed wireless broadband to un-served areas. The County has selected NC Wireless LLC to offer LightLeap broadband service. Seven (7) un-served areas in the County have been identified by official data from the NC Department of Commerce. The County will provide NC Wireless with a Broadband grant contribution for 50% of the equipment cost and Public Safety tower access at no charge for the initial 5 years of the project.

Methodology

TSS Partners approached this project in three steps:

- Understand the Person County current status and future plans for public safety and broadband through discussions with the County and Lightleap/NC Wireless staff.
- Collect and analyze data from existing proposals (Lightleap/NC Wireless), and combine that with TSS industry knowledge, in particular a similar project recently undertaken by Warren County.

3. Synthesize and document TSS views on feasibility, cost and schedule.

Current Public Safety Network Status

Person County currently provides public safety communications using a conventional VHF radio network. The network serves the Sheriff, Fire and Emergency Medical Services (EMS). The VHF radio network serves the County and a separate VHF radio network serves the City of Roxboro. The County VHF radio network consists of four (4) sites. One repeater site located in Roxboro provides Transmit and Receive. In addition there are three (3) Voting receiver sites (Receive-only) located at Moriah, Bethel Hill and Ceffo for Sheriff and County Fire.

While the current network provides coverage in the central region of the County, there is no pager coverage in areas along the County line. The Roxboro repeater has been experiencing interference from adjacent radio systems plus the Voting receiver sites have been inoperable due to lack of maintenance over the years. Initial steps to provide corrective maintenance are underway with a vendor. This program is an interim step, however, and does not address the coverage issues.

Public Safety Network Solution

A Simulcast network is recommended to address coverage issues throughout the County using the existing three (3) VHF frequencies. Simulcast uses advanced technology to maximizes the coverage with the existing 3 frequencies licensed by the FCC to the County. Initial coverage design studies show that a five (5) site Simulcast system would provide coverage throughout the County, and beyond the county lines to assist resources responding into adjoining counties where they provide mutual aid.

The sites are as follows:

- 1. The new VIPER tower on Critcher Wilkerson Road in Roxboro.
- 2. Bethel Hill School
- 3. Mt. Tirzah ball field
- 4. Bushy Fork ball field

5. Woodland Elementary School

Two of the new sites are on School property the other two sites are on County property. The VIPER tower is also on County property. The prime Simulcast site will be located at the 911 Center on Hill Street in Roxboro.

Tower height for the new towers will be 300 feet. In addition, the 4 towers will be constructed to support 50% additional loading to support the broadband Fixed Wireless antennas and 2 cellular carriers. Tower height of 300 ft is recommended to provide adequate antenna separation to mitigate interference. Towers specifications are based on the public safety industry standard which is a more demanding than the cellular industry standard.

Since the task of preparing an RFP to select a vendor and provide Project Management oversight is not a recurring need within Public Safety agencies, the industry standard approach is to outsource this task to a Radio Consultant with the appropriate qualifications. The cost estimate for this exercise is included in this study.

Broadband Network Solution

The broadband network NOC tower will be located in Roxboro on the EMS tower on Barden Street. It will also use 4 of the 5 five Public Safety tower sites:

- 1. Bethel Hill School
- 2. Mt. Tirzah ball field
- 3. Bushy Fork ball field
- 4. Woodland Elementary School

NC Wireless serves other Counties in NC, but the terrain is different from the terrain in Person County. In addition to the cost estimate supplied in the Broadband RFP response, there will be additional costs for Microcells to reach the remote areas due to the terrain in the County. Fixed wireless systems operate in frequency bands where clear line of sight (LOS) is required to deliver broadband service. Overcoming line of sight obstructions from trees and foliage will require that Microcells are located in the un-served areas. Foliage

variations due to seasonal changes impact broadband speeds and quality of service. These conditions require a Microcell solution to minimize the impact of seasonal change.

Consistent with industry practices, Broadband deployment will take place in two (2) Phases to gain experience with the terrain and subscriber demand.

Phase I will consist of deployment of Broadband equipment at the five (5) public safety sites.

Phase II will be based on deployment of Microcells adjacent to the remote areas to overcome line of sight obstructions. The Microcells will require towers or other vertical assets to reach the remote areas. The cost of the Microcell towers or other vertical assets are not included in this feasibility study.

The cost for Phase II Microcell solution is in addition to the Lightleap/NC Wireless response to the Broadband RFP. To provide a best effort estimate for capital budget planning, the additional cost beyond the cost in the RFP response is based on the assumption of deploying one (1) Microcell for each of the seven (7) un-served areas. The design is not complete and may change as deployment proceeds.

In addition, Person County requested Wireless Research Center of NC to perform noise floor measurements at the five (5) Public Safety sites. Since high levels of interference have been reported at tower sites in Roxboro, TSS recommends that the County should perform noise floor tests. High noise floors resulting from interference will impact the broadband quality of service. The estimated cost for this task is included in this report.

Public Safety Cost Estimate

Tower Sites

\$2,400,000

The following is a breakdown of the major items required to construct the four (4) new tower sites.

Item Description	Quantity	Unit cost	Extended Cost
Tower - 300 foot self supporting tower - Tower erection - Cable/antenna/dish install - Ice bridge - Shipping costs to site - 50% additional loading	4	\$300,000	\$1,200,000
Tower Foundation/Site Work - Clear and grade site - Pier foundations for towers - Compound fencing	4	\$115,000	\$460,000
Environmental Study	4	\$15,000	\$60,000
Shelter/UPS/Generator - 12 by 30 ft concrete Shelter - Shelter concrete pad - 40kW Generator - Generator concrete pad - 200 Amp power distribution - Automatic Transfer Switch - Two 48kVA AC units per shelter - UPS system (9kVA)	4	\$170,000	\$680,000
TOTAL		\$600,000	\$2,400,000

Radio Equipment

\$1,650,000

The following is a breakdown of the major items required to construct a 5 site simulcast VHF network.

Item Description	Price
VHF Simulcast system	\$1,200,000
- 5 simulcast sites	
- Simulcast prime site at the 911 Center	
Microwave radio	\$450.000
- 5 sites plus 911 Center	\$100,000
TOTAL (Radio Equipment)	\$1 ,650,000

Hire Radio Consultant

\$120,000

The estimate is based on hiring a Radio Consultant to prepare the RFP, evaluate vendor responses, assist with vendor selection and Contract negotiation and provide Project Management oversight for the construction of the towers and VHF network.

<u>TOTAL</u> \$4,170,000

Broadband Cost Estimate (Lightleap/NC Wireless)

The Broadband cost estimate is based on the Lightleap/NC Wireless response to the Person County RFP that was submitted in July 2013. In addition, the cost estimate will include the Microcells required to reach the un-served areas. Finally the cost estimate includes testing of the noise floor by the Wireless Research Center of NC.

BROADBAND COST ESTIMATE

Phase I - Broadband Cost Estimate

\$96,775

This cost estimate covers the equipment required at the 5 Public Safety sites. This cost estimate is the broadband grant contribution of 50% of total equipment cost.

Phase II - Broadband Cost Estimate

\$26,260

This cost includes seven (7) microcells which are additional costs beyond the response to the broadband RFP. This estimate is the broadband grant contribution of 50% of total equipment cost. The estimate does not include towers or other verticals assets for the Microcells.

Noise floor tests by Wireless Research NC

\$50,750

TOTAL

\$173,785

Cost Estimate Summary

Cost Element	Person County Expected Expenditure
Public Safety	\$4,170,000
Broadband	\$173,785
TOTAL	\$4,343,785

Key Assumptions

This feasibility study has, out of necessity, made a number of assumptions about the projects studied. It is important to understand these assumptions when using the study for budgeting and scheduling purposes.

- No serious, unexpected, environmental or historical impacts will be discovered during the site approval process, resulting in an extended Environmental study interval.
- The minimum number (3) of RFP responses will be received, and no re-bid will be necessary. It should be noted that the vendor community that can respond to these requirements is a small community.
- The Broadband cost estimate excludes towers or other vertical assets to support the Microcells. Also the Broadband estimate is a best effort estimate for capital budget planning and it may change as the Microcell network is finalized.

Expected Project Schedule

The chart below identifies a conservative, but not worst-case, view of the project schedule. A larger, detailed version is included in Appendix A

Project Timeline



Public Safety Timeline

The Public Safety project is expected to require approximately 28 months of elapsed time to complete based on the currently known parameters and assumptions:

- RFP intervals: Our experience is that they range from 6 to 9 months and the typical is 8. In Warren County the RFP interval was 6 months, but for a smaller project. If the project has to be rebid (for example less than 3 bids received) an additional 6-8 months would be added to the schedule. There is a risk that 3 bids may not be obtained.
- Environmental study: Our experience is that Environmental studies require the longest interval and are the least predictable. The recent VIPER tower interval in Warren County was about 18 months, but it had an additional 7 month interval for FEMA approval required by DHS grant fund conditions, that do not apply here.

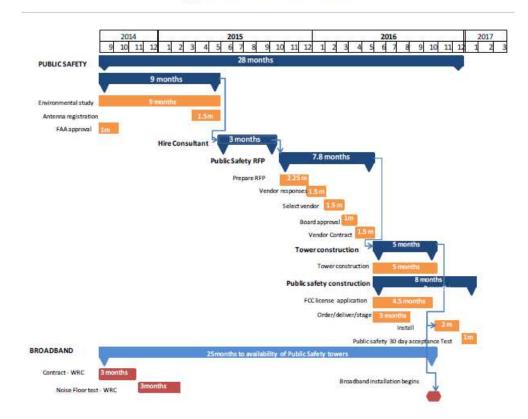
Broadband Timeline

- The Broadband project is expected to require approximately 25 months of elapsed time until the Public safety towers are available.
- The timeline for the microcell tower deployment will be defined after tower assets are available.

Final Observations and Recommendations

- The EMS tower at Barden Street was selected as the NOC site for the Broadband solution. Tower loading capacity is not available for this site. Since Lightleap NC Wireless will be adding additional microwave dishes at this site, a tower loading study is required to confirm the tower has the capacity to handle the new load. The NOC site is a cornerstone of the Broadband network since access to the Internet for all subscribers will be delivered through the EMS tower. The cost of a tower loading study is typically about \$3000 or less. This is not included in the cost estimates.
- A recent tower loading study on the Piedmont tower reported that it was operating with a tower load of 150% of the rated capacity. Steps have already been taken to provide some de-loading of the Piedmont tower as part of the project that is already funded to reduce interference. It is recommended that the de-loading process should be completed as early as possible by taking advantage of the space on the new VIPER tower.

Appendix A - Timeline



Mr. Marum spoke of the Person County topography and the flat elevation that validates the proposed height of 300 ft. for the towers to ensure optimal line of sight for increased coverage area.

Mr. Lail and Mr. Wrenn addressed the Board on the current infrastructure being inadequate noting the equipment is not licensed public safety equipment, outdated noting technology improves constantly as well as the current structures do not have shelters, backup generators, etc.

Vice Chairman Jeffers requested staff to contact Avery County to find out their broadband vendor and process for a shorter-term fix. Ms. Tate stated she would contact Avery County.

The estimated costs for the public safety, as reflected in the revised feasibility study are \$4,170,000 and the cost estimated costs for broadband is \$173,785. County Manager, Heidi York noted the need for the Board to hold a work session for capital projects. Ms. York further noted the public safety project could be phased with two towers completed over two fiscal years. Ms. York told the Board that the County has a threshold to which financing is an option noting more information to be shared at the CIP work session.

CHAIRMAN'S REPORT:

Chairman Clayton had no report.

MANAGER'S REPORT:

County Manager, Heidi York announced the following meetings:

- The EDC/PCBIC will be meeting on Thursday, March 20, 2014 at 8:00 am in the Tax Office conference room.
- On March 24, 2014, the Board will have a Capital Improvement Plan work session at 5:00 pm, with a 6:00 pm joint meeting with the Board of Education following in the County Auditorium.

COMMISSIONER REPORT/COMMENTS:

There was no report from Commissioners Newell and Puryear.

Vice Chairman Jeffers reported the following:

- NACo grants clearinghouse, a website for NACo members,
- NC Association of County Commissioners (NCACC) Board of Directors voted to lower the dues for all counties for the sixth year in a row,
- As President of the NCACC, he is looking at economic development across the state as a top initiative, therefore the NCACC is putting on a first ever economic development symposium with Charles Hayes as the keynote speaker April 20-30, 2014.
- Representative Holloway, Chair of the Appropriation Committee, from the Wilkes/Stokes County area will very likely introduce a bill during the short legislative session to reinstate the counties 40% of lottery funding for capital projects. Vice Chairman Jeffers explained counties were told by the lottery commission that counties would receive 40% for capital needs; however, counties have never received that 40% funding with action by the General Assembly last year to remove the language from the law as a measure to save 40%, and
- Asked for any community church or group that could allow a MS Support Group that meets monthly a space noting they were meeting at the Senior Center Depot site.

CLOSED SESSION:

A **motion** was made by Vice Chairman Jeffers, and **carried 4-0** to enter into Closed Session per General Statute 143-318.11(a)(5) to consider the acquisition or lease of real property at 11:28 am with the following individuals permitted to attend: County Manager, Heidi York, Clerk to the Board, Brenda Reaves, and Assistant County Manager, Sybil Tate.

A **motion** was made by Commissioner Puryear and **carried 4-0** to return to open session at 11:34 am.

RECESS: A motion was made by Vic meeting at 11:35 am until 5:00 pm on	e Chairman Jeffers, and carried 4-0 to recess the March 24, 2014.
Brenda B. Reaves	Jimmy B. Clayton
Clerk to the Board	Chairman