City of Topeka & Shawnee County

JOINT ECONOMIC DEVELOPMENT ORGANIZATION

United For Growth

JEDO Board Meeting
May 9, 2018
6:00 P.M.

City Council Chambers
214 SE 8th Street, 2nd Floor
Topeka, Kansas

JEDO Board Members

Shawnee County Commissioners	
Shelly Buhler	District No. 1
Kevin Cook	District No. 2
Bob Archer	District No. 3

City of Topeka Governing Body	
Michelle De La Isla	Mayor
Karen Hiller	District No. 1
Sandra Clear	District No. 2
Sylvia Ortiz	District No. 3
Tony Emerson	District No. 4
Michael Padilla	District No. 5
Brendan Jensen	District No. 6
Aaron Mays	District No. 7
Jeff Coen	District No. 8
Michael Lesser	District No. 9

JEDO Board Voting Members

Shawnee County Commissioners
Commissioner Shelly Buhler
Commissioner Kevin Cook
Commissioner Bob Archer

City of Topeka Governing Body
Mayor Michelle De La Isla
Deputy Mayor Brendan Jensen
Councilmember Michael Padilla
Councilmember Michael Lesser

Public Comment. Comment from members of the public shall be entertained on each actionable agenda item and at the end of each meeting. Comment shall be limited to topics directly relevant to JEDO business. Members of the public wishing to speak must notify the County Counselor's Office (call 785-251-4042 or email megan.barrett@snco.us) before 5:00 p.m. on the date of the meeting. This requirement shall not apply to items added during the meeting. Members of the public shall be given four (4) minutes to speak and must maintain proper decorum relating to public meetings.

Agenda. Agendas are furnished at least five (5) business days prior to each meeting and posted on JEDO's website at www.jedoecodevo.com.

To make arrangements for special accommodations please call 785-368-3940. A 48-hour advance notice is preferred.

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

JEDO Board of Directors Meeting
Agenda for Wednesday, May 9, 2018
6:00 p.m.

Topeka City Council Chambers
214 SE 8th Street, 2nd Floor
Topeka, Kansas

1. Call to Order

2. Roll Call

3. **ACTION ITEM:**
   a. Approval of February 28, 2018 JEDO Board meeting minutes.
   b. Approval of March 14, 2018 JEDO Board meeting minutes.

4. **ACTION ITEM:** Approval of Funding for Project Marble.

5. **ACTION ITEM:** Approval of GO Topeka 2017 Financial Statements and Auditor's Report.

6. Presentation: GO Topeka Quarterly Report.

7. **DISCUSSION WITH POSSIBLE ACTION:** Quality of Place & Economic Development.

8. Discussion: East Topeka Learning Center (Washburn Tech East)
   a. Construction Project Update
   b. New Markets Tax Credits Update

9. **ACTION ITEM**: Community Broadband Task Force.
   a. Presentation/Report from the Committee
   b. Request to move to Phase 3 and issue Request for Information (RFI)

10. Any other business items that may come before the Board for consideration.

11. Public Comment.

12. Reminder of 2018 JEDO Board Meeting Dates per the JEDO Operational Rules:
Wednesday, September 12, 2018
Wednesday, December 12, 2018

13. Adjournment.

Public Comment. Comment from members of the public shall be entertained on each actionable agenda item and at the end of each meeting. Comment shall be limited to topics directly relevant to JEDO business. Members of the public wishing to speak must notify the County Counselor's Office (call 785-251-4042 or email megan.barrett@snco.us) before 5:00 p.m. on the date of the meeting. This requirement shall not apply to items added during the meeting. Members of the public shall be given four (4) minutes to speak and must maintain proper decorum relating to public meetings.

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Agenda Item No. 3

JEDO Board Meeting
May 9, 2018

ACTION ITEM:

a. Approval of February 28, 2018 JEDO Board meeting minutes.
b. Approval of March 14, 2018 JEDO Board meeting minutes.

Joint Economic Development Organization Board Minutes
February 28, 2018

City of Topeka Council Chambers, 214 SE 7th Street, Topeka, Kansas, Wednesday, February 28, 2018.

The Joint Economic Development Organization (JEDO) Board members met at 6:00 p.m. with the following voting Board members present: Shawnee County Commissioners Shelly Buhler, Kevin Cook and Bob Archer, City of Topeka Mayor Michelle De La Isla, City Councilmember Michael Padilla, and City Councilmember Michael Lesser. City Councilmember Tony Emerson held proxy for Deputy City Mayor Brendan Jensen who was out of town. Shawnee County Commissioner Kevin Cook presided as JEDO Chair.

The following nonvoting JEDO Board members were present: City Councilmembers Tony Emerson (served as proxy for Deputy City Mayor Brendan Jensen), Aaron Mays, and Jeff Coen.

The following nonvoting JEDO Board members were absent: City Councilmembers Karen Hiller, Sandra Clear, Sylvia Ortiz.

Others present who presented and/or spoke before the Board:
Betty Greiner, JEDO Finance Committee Treasurer & Shawnee County Audit Finance Director; Molly Howey, Senior VP of Economic Development for GO Topeka; Glenn "Skip" Smallwood, CEcD, CEM, Chair of the Accredited Economic Development Organizations Committee for the International Economic Development Council; Glenda Washington, VP of Entrepreneurial and Minority Business Development for GO Topeka; Karen Lane Christilles, 712 Innovations; Barbara Stapleton, Director of Workforce and Education for GO Topeka; Gabriel O'Shea, Forge Young Professionals; Kayla Bitler, Strategic Coordinator for Momentum 2022; Marcus Clark, East Topeka Learning Center Project Taskforce Co-Chair; Ryan Cavanuagh, Top Tank Topeka Winner "The Brew Bank"; Cain Davis, Board Member, Strategic Leadership Academy; Patrick Woods, Director of Talent Management and Diversity, Westar Energy; Angel Romero, VP of Resource Development, United Way of Greater Topeka; Kurt Kuta, GO Topeka Board Secretary; President & CEO, CoreFirst Bank & Trust; Cody Foster, Advisors Excel; Carol Marple;

ITEM NO. 3: ACTION ITEM: Approval of December 13, 2017 JEDO Board meeting minutes.

Mayor De La Isla moved to approve the December 13, 2017 meeting minutes as presented. Commissioner Buhler seconded. Following a roll call vote, motion carried unanimously (7-0).

ITEM NO. 4: Presentation: JEDO Finance Committee 4th Quarter Cash Statement (2017): Betty Greiner, JEDO Finance Committee Treasurer (Shawnee County Audit Finance Director).

Betty Greiner, JEDO Finance Committee Treasurer & Shawnee County Audit Finance Director presented the JEDO 4th Quarter Cash Statement (2017) to the Board.

Joint Economic Development Organization
Cash Statement
As of December 31, 2017

Receipts:		
Sales Tax - City of Topeka		$ 9,047,779.40
Sales Tax - Shawnee County		8,493,358.21
Interest Income		27,756.16
Total Receipts		**17,568,893.77**
Disbursements:		
City of Topeka:		
SW 21st Street - Urish Road to Indian Hills	$ 446,769.29	
Excess Monies from 2004 Sales Tax	9,844,171.42	
Distributions of 2017 Sales Tax	4,089,149.73	
		14,380,090.44
Shawnee County :		
Excess Monies from 2004 Sales Tax	8,372,168.41	
Distributions of 2017 Sales Tax	4,429,912.19	
		12,802,080.60
GO Topeka		4,999,999.92
Audit Fee		4,775.00
Bank Charges		406.81
Total Disbursements		**32,187,352.77**
Net Receipts (Disbursements)		(14,618,459.00)
Cash Balance - January 1, 2017		**15,973,336.87**
Cash Balance - December 31, 2017		**$ 1,354,877.87**

Note: This is a cash basis report

Prepared by Betty Greiner

ITEM NO. 5: ACTION ITEM: Approval of Funding for Project Jingle.

Molly Howey, Senior VP of Economic Development for GO Topeka presented the request to the Board.

Project Jingle is an existing business expansion project and it is before the Board tonight just for funding approval. The company is not ready to announce their name yet but the hope is that they will be at the May JEDO meeting to do that.

- $20M Investment to Construct Additional Facility
- 12 New Full-Time Jobs
- $45,000 Average Salary Professional Positions

Proposed Incentives

- Maximum Incentive of $212,800
    - $160,000 capital investment
    - $52,800 job creation
- Performance based
- Economic Impact
    - $30.7M one-time economic impact
    - $4M recurring annual economic impact
    - $70.7M 10 year economic impact

Mayor De La Isla made a motion to approve the funding. Councilmember Padilla seconded. Following a roll call vote, motion carried unanimously (7-0)

ITEM NO. 6: PRESENTATION: Organizational Announcement

Molly Howey, Senior VP of Economic Development for GO Topeka and Glenn "Skip" Smallwood, CEcD, CEM, Chair of the Accredited Economic Development Organizations Committee of the International Economic Development Council presented to the Board.

Molly Howey - GO Topeka has been trying to obtain accreditation with the International Economic Development Council through their Accredited Economic Development Organizations ("AEDO") Committee. GO Topeka hosted a site visit with the folks from that group earlier this year and that group interviewed quite a few public members and elected officials and looked over all of GO Topeka's policies and paperwork they submitted.

Skip Smallwood – Some of them are very familiar because they were involved in the stakeholder meetings. They really appreciate all of them taking the time to answer questions. He is not sure how familiar they are with the process or what is involved in becoming accredited. It is a two phase process. The first part is they ask for a lot of documentation ranging from Strategic Plans, marketing plans, budgeting, financials. They want to look at the organization itself, how it is structured, even down to how they communicate successes and information to the public and their investors. Once all that information has been gathered, their review team made a recommendation to the AEDO Advisory Committee. There are 30 members of professional economic developers from all around the United States and Canada. The report was presented with a recommendation and the committee recommended that they do a site visit. And that is what they did last month. The purpose of the site visit was to learn a little bit more about the documentation. They were very intrigued with the Strategic Plan because of how comprehensive it was but what he was interested in was how holistic it was as well and especially how we are integrating all of the different groups to work as one and have one focus. That really intrigued them. But also while they

were here they also wanted to meet with the stakeholders because they are very interested in learning about the interaction with GO Topeka and JEDO and the investors, with businesses. These were very productive meetings, they tell a lot about how effective the organization is. Once they complete the site visit, they produce another report to the AEDO Advisory Committee. Then at that point the Committee votes whether or not to grant the accreditation or not.

Before he announces the results, he again wants to thank all of them for participating in the stakeholder interviews and also thank the GO Topeka staff. They are a very professional group; it was a very seamless process. They probably go more information than they had requested but it really helped them compile the report and make appropriate recommendations. So based on their report and the recommendation made by the AEDO Advisory Committee, the Committee has voted to grant the accreditation to GO Topeka. He would like to congratulate all of them and JEDO for this accomplishment. And he would like to present to GO Topeka the AEDO plaque and they are the first in the State of Kansas to become AEDO certified. They are setting the bar now for the other economic development organizations in the State of Kansas.

- Accredited Economic Development Organization (AEDO)
- One of 62 Globally
- First and Only in Kansas

Councilman Emerson moved for the JEDO Board to recess for a few minutes for a photo opportunity. Mayor De La Isla seconded. Following a vote, motion carried unanimously (7-0).

Commissioner Cook asked Mr. Smallwood, it has been stated that this is setting the bar for other organizations and we are now the first in the State of Kansas, does this give us other opportunities in Shawnee County and Topeka and access to the AEDO as an accredited organization and maybe access to other things that we didn't have before? How does this benefit us?

Mr. Smallwood responded the main thing is it is demonstrating, investors are going to want to know what kind of organization they are putting money into. Because the question is always I want a return on my investment. On the investor side they are always wanting to know if you have a professional organization or not, especially dedicated to being professional. There is a certification for individuals, this is actually a certification for the organization so it is demonstrating that you do have a professional organization. But it also he thinks speaks very loudly to the prospects that are looking here, it adds to your credibility. Because they know when they are dealing with an AEDO, they are dealing with a very competent organization, one that is ready to provide whatever the resources. So there is some value and you are providing more value to prospective companies and also to the investors because they really do ask what are we getting out of this and what is it you are trying to accomplish. About less than 1% of all economic development organizations in the United States become accredited and the reason why a lot of them don't is because it is very intensive. There is a lot of information that is being asked for and also it is a peer review, because you are asking an outside group to come in and look at you and make recommendations on what you are doing right and what are some improvement opportunities.

Commissioner Cook stated so by being an accredited program this speaks highly of the Greater Topeka partnership and the work that has been done with the holistic plan.

Mr. Smallwood replied yes definitely.

ITEM NO. 7: PRESENTATION: GO Topeka Quarterly Report

Molly Howey, Senior VP of Economic Development for GO Topeka;

- Renewed marketing plan with assistance of GTP team
- Relationships and Data are key
- Coordination with BAAF Tech Initiative
- Lead generation is key
- Business Analytics tool
- Reviewing Incentive Offerings per Momentum 2022

Jackie Steele, Director of Business Retention and Expansion for GO Topeka;

- 16 Projects in Pipeline, 2 opened in 2018
- Businesses Reaching Out
- 10 On-site business visits
- Financial Services Summit – September 26th at Security Benefit

Councilmember Coen entered the meeting at 6:24pm

Glenda Washington, VP of Entrepreneurial and Minority Business Development for GO Topeka;

- Small Business Incentives YTD
  - Issued $64,094 in incentives to 13 clients
  - 30 in the pipeline
- Mid-America Angels
  - Growing Steadily
  - 170 Angel Investors
  - $4.7M invested in 14 different companies (first and second round funding)
- PTAC 2017 Goals
  - New Clients
    - Goal: 5
    - Actual: 77
  - Counseling
    - Goal: 85
    - Actual: 285
  - Events
    - Goal: 1
    - Actual: 3
  - FY17, KS PTAC clients in Topeka Subcenter area achieved $15.4M in Federal contracts
- PTAC 2018 Goals
  - New Clients: 55
  - Counseling: 375 hours one-on-one sessions with clients
  - Workshops
    - Competing for Government Contracts
    - Proposal Writing
    - GSA

Commissioner Cook asked out of the 44 new businesses, where do we find those businesses located in the community?

Ms. Washington replied they are all over. Some in NOTO, Fairlawn, all over the community, no one place. Downtown, some on 21st Street.

Councilmember Padilla stated he knows they are trying to make some of the training program materials available in a second different language. In addition to that effort of the written materials, what else is being done to have outreach to the Hispanic community?

Ms. Washington responded she has been working with Lalo (Munoz) and his team (El Centro of Topeka) looking at how we can get training programs, she has been given a contract from Kansas City to come down to do some training. She has looked at how we can do some after hour's events so we can give some education and information. There is an effort and also if Councilman Padilla would like to help her it would be welcomed.

Councilman Padilla responded he appreciates that, it is kind of a nontraditional entrepreneurial group. You have to look at a lot of different things. Often the training we assume is attractive to everybody isn't in the right time zones and those sorts of things, so he appreciates the efforts being taken.

Ms. Washington replied we took the initiative to co-host the Black Business after hours and that is going really well. And we knew we had to reach out beyond where we set so we are looking at how we touch everyone in the community so everyone will rise together.

Karen Lane Christilles, 712 Innovations

- Entrepreneurial Task Force
    - 59 leaders came together for meeting.
    - Six months – had 11 one hour meetings
    - 31 presentations
    - 35 Organizations covered
    - Principles
        - Entrepreneur-led
        - 100% inclusive everyone is welcome

- Entrepreneurial Ecosystem
    - Education - 10 middle school and high school programs; 4 post secondary and university programs.
    - Location & Events – 65+ events annually
    - Mentorship – 3 organizations match mentors
    - Incubation & Acceleration – 712 Incubator in partnership with Washburn University. First cohort – Summer 2018
    - Funding – 4 gap funding programs; 3 Venture Capital Firms
    - Talent – 35 organizations serving entrepreneurs

Barbara Stapleton, Director of Workforce and Education for GO Topeka;

Topeka/Shawnee County Statistics

- Quarterly Snapshot
  - Labor Force Participation Rate
  - Unemployment Rate
  - Average Wage
  - Employment Population Ratio

- Annually
  - Educational Attainment
  - Graduation Rate
  - Median Household Income

- TopCity Teachers
- HR Breakout – Military Relations Council
- Cradle Through Career – selected candidate

Gabriel O'Shea, Forge Young Professionals

- Engagement is up
  - 500+ people at December and January events
- Membership is record high
  - 1,700+members
- Goals
  - 2,500 members target

ITEM NO. 8: PRESENTATION: Momentum 2022

Kayla Bitler, Strategic Coordinator for Momentum 2022 provided an update on Momemtum 2022 to the Board.

- Metrics – taskforce has worked really hard to solidify a set of metric we are going to use to measure our progress. Metrics were approved by Implementation Committee on February 26th, so right now staff is working to refine data and compile in a way that is most easily explained. So stand by and that will be coming soon.

- Work Group Actions
  - Downtown & NOTO – working on a Downtown & NOTO master plan.

  - Marketing – working on a Speaker's Bureau to talk about the positive accomplishments and things going on in our community.

  - Entrepreneurialship – working on taking a look at the entrepreneurial ecosystem and starting to look at programming at 712 and work through some opportunities that we have

  - Economic Development – beginning to work with the Quality of Place work group to identify how they feel economic development and quality of place sort of relate to one another and how they can work together.

- Community Engagement – they have several community engagement projects in the works. They are developing an I "Heart" TopCity t-shirt campaign. They are also working with Shawnee County Parks & Recreation about opportunities to work with neighborhoods to artfully repaint some basketball courts in the community.

- Quality of Place – starting an educational marketing campaign that is two-fold. On one hand it will help explain what some incentives that we have in our community actually are and then it will talk about how those incentives promote quality of place and how they enhance our community.

- Talent Development – working to identify what kindergarten readiness programs we have in our community and what gaps there might be as well which can then be addressed through our Cradle Through Career programming.

- East Topeka Council – will meet next week. They will hear a presentation regarding the East Topeka Learning Center market study and have the opportunity to provide feedback as well.

- Capital Campaign
  - Goal: $6.3M
  - Current committed dollar amount: $6.18M
    - 98% goal reached.
  - Another $1.7M pending and in the process of adding another 100+ names to call

Commissioner Cook asked when did we kick off the Capital Campaign.

Ms. Bitler replied it was maybe around late August.

Commissioner Cook replied this is a really outstanding fundraising event and a real commitment from the community in such a short period of time.

ITEM NO. 9: ACTION ITEM: Broadband Task Force request for extension of project time line (Phase 2)

Commissioner Cook stated this was an item that was brought to us and as we embark on the Broadband Project, we have received some correspondence about that and needing to move to Phase 2 and needing an extension.

Commissioner Buhler stated she can shed a little more light on this. This is a request to extend the project timeline. The committee had anticipated doing the presentation at this meeting but we really need just a little more time to bring the full Broandband Project management team together and that will happen in the next couple of weeks. And then they would give a full presentation at the May JEDO meeting. There are no fees associated with this extension.

Commissioner Archer made a motion to approve the Broadband Task Force's request for extension of time for Phase 2. Mayor De Las Isla seconded. Following a vote, motion carried unanimously. (7-0)

ITEM NO. 10: DISCUSSION: East Topeka Learning Center Project Update.

Marcus Clark, East Topeka Learning Center Project Taskforce Co-Chair provided an update to the Board.

- Design and Construction Process – the bid for general contractors, the bid was let on February 8th and the low bid was from Champion Builders and they would request an award and execution of a contract in the amount of $3,183,235.

Barbara Stapleton, Director of Workforce and Education for GO Topeka provide an update to the Board regarding the New Markets Tax Credit development.

> Yesterday evening at 5:23 p.m. she received an email that RAZA Development Fund is pleased to present a reservation agreement letter for up to $6.5M of New Markets Tax Credit allocations for the ETLC project. They are very excited about the impact this project will have for low income community members in East Topeka and are happy that GO Topeka's consultant (Jeff White) shared the project with them. They plan a visit in the near future to hear in person about the wonderful work that GO Topeka and Washburn University and Washburn Tech will be doing.
>
> Now what that means, she has some notes from Jeff White with Columbia Capital, $6.5M is the total project amount. So they have taken into consideration the $4.5M that JEDO has already committed to the project, the $1M in gap funding that would get us to our total project costs that we have indicated of $5.5M, and then they take into consideration the roughly $1M beyond that, that will be the various fees, attorneys' fees, those types of costs that are involved with getting New Markets Tax Credit.
>
> So at $6.5M there is approximately $.39 cents on the dollar for the nominal future value of those tax credits, which equals $2.535M (that is an estimate), investors are willing to pay approximately $.83 cents on the dollar for that. So that means, that after all is said and done, the New Markets Tax Credit award is approximately $2.1M gross. From that $2.1M gross then you have things that are those various New Markets Tax Credit fees, the specific attorneys that are needed, those fees are approximately $1M, so then we would have left $1M to fund the $1M gap we have.
>
> She lays that foundation for them and certainly there can be discussion tonight, but she will let them know we do need to get that reservation letter back to RAZA Development Fund within seven days. There is in essence earnest money of $32,500 that we will need to provide. They will get it back to us when we complete this whole project. We will be presenting that to the GO Topeka Executive Committee on Friday so they can authorize that. But in essence the JEDO Board has charged them with pursuing New Markets Tax Credit and moving forward through this, so this is literally fresh off the press. That is why it is not in the packet for tonight.

Commissioner Cook stated so at this point we really have two items that are going to have to come before JEDO very quickly. One is the award of the contract with the general contractor and the other is action on the New Markets Tax Credit.

Ms. Stapleton said yes, GO Topeka will be responding to the reservation letter and yes as things move forward. There are a lot of different things they would want to have Jeff White explain a little bit more.
Commissioner Cook asked these are probably items that cannot wait until the May JEDO meeting.
Ms. Stapleton responded that we definitely cannot wait until May to award the contract for construction because we can't begin demolition or remediation or begin the remodel of the site until we have a contract with the contractor.

Commissioner Cook asked Jim Crowl, Shawnee County Counselor, if the best course of action would be to call a special meeting for those two items.

Mr. Crowl responded yes that is what he would recommend and Commissioner Cook as JEDO Chair has the authority under the JEDO Operational Rules to set a special meeting if that is necessary.

Commissioner Cook asked what about timeline and notice that needs to be given.

Mr. Crowl replied it would be best if they would give the same amount of notice that you would for any regular meeting of JEDO.

Commissioner Cook stated with tonight being February 28th, giving a two week notice; that would put us out to March 14th.

Mr. Crowl stated he thinks that would be appropriate.

Commissioner Archer stated he is still trying to figure out the numbers. There was one number he heard of $1M in attorneys' fees?

Ms. Stapleton responded that is not just for attorneys' fees. It is approximately $1M for all the various fees related and she doesn't have the full breakdown at the moment.

Commissioner Archer replied still $1M in fees? We are getting $2M?

Ms. Stapleton responded we are getting $2.1M, and of that $2.1M, our net we would receive is right at $1M. We don't ever pay that money or lose that money, this is just the process.

Commissioner Archer questioned why aren't we getting that money. It makes no sense to him. Is there anyway JEDO can get a real simple explanation with the numbers and where they are going and what we are going to benefit from because that just sounds outrageous to him.

Ms. Stapleton responded we did have a presentation from Jeff White on New Markets Tax Credit 101 from last year. She can pull that presentation again. We are not spending that money at all. It is a moving game in terms of how they allocate and award.

Commissioner Archer stated he doesn't think anyone in this group understands that. He doesn't. A simple explanation of where the money is going and what we are doing he thinks would be helpful.

Commissioner Cook stated he thinks an explanation, we have new members of JEDO here, what are the benefits of applying for the New Markets Tax Credit. How does that benefit the ETLC, how does that benefit Shawnee County and Topeka.

Ms. Stapleton stated that the benefits, when we approved everything in terms of the project early last year, we had what was considered a funding gap of $1M for the total project expense. We were advised that there were New Markets Tax Credit dollars that would fund gaps, if you had a funding gap. We have the project developed, but we didn't necessarily have all the funds that were approved. This has been a long time coming with putting your project out there, see if people are interested and does it appeal to them. We are in essence receiving $1M to be able to meet the balance of JEDO's commitment and the agreement you have with Washburn University to conduct the ETLC. Receiving those funds which they would not have to pull as the JEDO organization, from sales tax dollars.

Commissioner Cook asked this is what is going to be presented to the GO Topeka Board of Directors?

Ms. Stapleton replied it will be presented to the Executive Committee, the reservation letter will be presented to them and Jeff White will answer questions they might have. And Jeff would be available by phone for the March 14th Special JEDO meeting.

Commissioner Cook stated he believes it would be beneficial for everyone on the JEDO Board, voting and nonvoting, to have that breakdown, the financial breakdown. What are the administrative fees, what are the costs and how does this benefit the ETLC.

Ms. Stapleton stated all those administrative fees and costs are all rolled up into that projection. We don't have to actually pay those, it is part of what is allocated to us. But we still get a net of $1M.

Commissioner Archer stated as he understands it she is saying there is $2.1M out there and we are getting less than half of that. We have to negotiate a better deal than that.

Commissioner Cook asked if we came back to a special JEDO meeting on March 14th, it would be the action item of the JEDO Board as to whether or not to issue the New Markets Tax Credit or not.

Ms. Stapleton replied the decision would be whether or not to proceed forward with it, yes.

Commissioner Cook stated looking at our timeframe with ground breaking and moving forward with the ETLC, is there any objection with having a special JEDO meeting on March 14th for those items?

Councilman Emerson asked if we could also find out, is this company presenting us this offer, are they the only ones we can get this from, is this a normal offer? He knows this is good news but we have to be good stewards, these tax credits are Federal dollars which we all pay.

Ms. Stapleton responded it is very confusing and she gets that. Jeff White is our consultant and he is with us through the long haul throughout the entire process. In this case, this is a very good option. RAZA Development Fund they like to focus on Hispanic serving institutions, and look at projects that impact low income communities. They don't have a lot of requirements in this, we are able to have some pretty decent flexibility. There was another company Jeff was talking to at the same time and they had union requirements related to the construction. So there can be some pretty heavy requirements from some companies with these and in this instance Jeff indicates there really aren't a lot. Jeff did indicate that their fees are a little bit higher but they are not as high as some others you could see. There are some with fees where we would be looking at receiving $700,000 instead of $1M. It is really one of the better ones and it is the best offer that we have received.

Councilman Emerson stated before we get to the March 14th meeting, will we know prior to that what are the options we will have?

Ms. Stapleton responded that she doesn't think there are a whole bunch of options necessarily. In the agreement it outlines all of the various things that there are. She will request for Jeff to get us a snapshot of those that will be part of the agenda packet.

Councilman Lesser stated he also would like a copy of the bid results as well as the proposed construction contract.

Commissioner Archer asked if everyone could be sent that.

Mayor De La Isla stated on the same date we are proposing to have the special meeting, March 14th, the City of Topeka is having their open house for the budget. And we wanted to ensure if we have the meeting, it is an event that the Councilmembers are invited to come and go and interact with the constituents. So if we schedule this special JEDO meeting the thought would be to at least provide an hour to 90 minutes to have their time with their constituents.

Commissioner Cook asked what time would be a good time to start the JEDO meeting that night?

Mayor De La Isla replied she thinks 6:30 p.m.

Ms. Stapleton stated one other thing she would like to mention, we did have another CDE in January indicate that they had decided if they received New Markets Tax Credit from the federal government to award that they would select this project, but they did not receive the funding.

Commissioner Archer stated he just doesn't like these "trust me" deals.

Commissioner Cook stated with that we will schedule a special JEDO meeting on March 14th starting at 6:30 p.m. for those two items.

ITEM NO. 11: DISCUSSION: Quality of Place & Economic Development

Commissioner Cook stated as they may recall at the last JEDO meeting, there was a discussion about the 2018 Cash Carry Forward Agreement and in that there was a discussion of setting aside funds for quality of place. And we had just touched briefly on that. In preparation of this JEDO meeting he has had an opportunity to meet with many of them, Mayor De La Isla and he sat down over a series of meetings to talk about what is this "quality of place." This is a discussion item and an opportunity for all of us to talk about this, what is quality of place, does it have a place in economic development or does it not have a place in our plan. So that we can engage in that discussion before we adopt any policy. It would be his hope that after tonight's discussion we are able to take these comments and craft them into a policy that we would review in the May meeting and at that time we would take official action. He has invited a number of people to step forward and give us a comment about how quality of place factors into economic development.

Ryan Cavanaugh, (Brew Bank) – He with his partners Dusty Snethen and Melissa Snethen were honored to be named the winners of the TOP TANK competition. Brew Bank is an upscale pub who is committed to community. So instead of many small tables we will have large tables to promote people to gather and create memories and friendships and create community in the downtown area. We are in a really exciting time in Topeka because we are on the verge of a Renaissance in downtown. They chose Topeka for their project because they were talking about how there is no place in Topeka like Brew Bank. So they waited for someone else to create and no one did, so they thought why don't we do it. So they came up with the business plan, they are all native Topekans and we didn't want to have to go to a place like Lawrence or Kansas City. They want to stay in their hometown and be here. Brew Bank will have a stage with local and regional acts with music, stand up comedy, trivia nights, Saturday mornings will be kids only karaoke. We really want to make it a place, a destination for people to come here. They wanted to open their business in Topeka but what they didn't know was how Topeka was going to be so amazing to them and their business, with GO Topeka, 712, Forge, Washburn University Small Business Center. They have been blown away with the amount of things available to people who want to bring a small business to Topeka. Who want to drive other businesses in this area to downtown. This idea of theirs started on a napkin and has come to fruition and they hope to be one of the first and only places in the State that offers digital self serve taps, where you can go and pour your own beer per ounce and create a community environment where we not only have a community within the walls of their establishment but create a

community throughout the downtown area and make it a destination, so people are leaving Lawrence and Kansas City to come to Topeka. This is the future of Topeka and they are excited to be a part of it.

Commissioner Cook congratulated them on their accomplishment. He asked how quality of place affects a business such as theirs and starting up a new business.

Mr. Cavanaugh responded that for them the downtown is starting to grow and there are already businesses coming in and they want to be a unique place in an area like a third space where people go after work and they find community, they come from miles around because there are not places like that in their towns and they knew Topeka was ready for them and they knew they were ready to be a part of what Topeka has to offer especially in downtown after all the renovations that have been put it, it is just waiting for someone to flip the switch and they hope they can help do that.

Councilman Padilla also wanted to congratulate them on winning TOP TANK, he thinks their enthusiasm is great. When he said the word Renaissance; that is one of the reasons he ran for City Council because he thinks they are right, the City is right at the brink of really taking off and he appreciates them bringing their business to Topeka.

Cain Davis, Board Member, Strategic Leadership Academy – he was asked to speak to quality of place and its relationship to economic development. And when he thinks of that he thinks of an acronym called "DAWN" which stands for Diversity, Attraction, Weekends & After Hours, and Network. For diversity, if you have good economic development you get people from all over the world. His wife is from India, and he is in Topeka because of her. Looking at attraction, you attract people with every level of skill set, and that skill set actually attracts businesses and investors who look at this community. As it relates to Weekends & After Hours, he works very hard, but he does enough his weekends and after hours, and he would love to go to places that he can enjoy, he would love to be able to contribute more to nonprofit organizations and if we have businesses coming here we have more resources to support nonprofit organizations and more people interested in supporting nonprofit organizations. And lastly, the network aspect of it, you have so many people locally and regionally who look at a community, but he is in the business where metrics drive so much. Nationally and internationally you have people who can get on the internet and look at see what is happening in Topeka. Something he looks at is the community feel. For investors, if it feels like it, they are going to inquire more and they may eventually end up being here.

They asked the last speaker how quality of place affects them personally. He started a leadership program here called Strategic Leadership here in Topeka a few months ago. And it is really designed to assist minorities with understanding leadership and executive things so they can contribute more in their work environment but also so they can understand how and why they need to invest in their community by being more active and serving on boards. Also he and his wife own a small property management firm. The examples he has, in his property management firm he has young man, about 25, who called him this Monday and told him he was leaving Topeka. And he knows with previous conversations with him, this man has spent a lot of his time going to Wichita and Kansas City for weekends and evenings. And last night when he met with him, it was the same sentiments. He loves Topeka; he graduated two years ago from K-State as an engineering student. He looked at that and said here is a guy who is going to make a lot of money, a decent salary in his community, he is going to have a family and that family can roll out and do a lot of things in this community. And in his leadership program, he has a young attorney who came to this community, went to our local law school, graduated, and in conversation with her, her big question and concern, because he asks everyone what is their plan. And in this class a majority of the people are not lifelong Topekans. A majority of them came here to go to school, he thinks they want to stay here but they are concerned about having a social life. They are not 60 years old like him. They want to do some other things. But this young attorney voiced to him

that she hopes she can stay in Topeka and she talked about the last community she lived in and about how much was downtown for young people. So for him those two examples really shows him how economic development really does make a difference in quality of place.

Patrick Woods, Director of Talent Management and Diversity, Westar Energy and Board Member, USD 501, Topeka Public Schools. He was asked to talk about workforce development specifically and how it relates to quality of life and quality of place. He gets a chance in his job to do some pretty interesting things and have some interesting conversations with a lot of really talented young people. He gets to go to our local institutions of higher education and he gets to go to a few that are in different places and then try to attract and recruit students from nontraditional backgrounds from all kinds of places. We want all the talent we can possibly get. He is always surprised by the sophistication of these students when he talks to them. One of things that they really want to know and what really appeals to them, and they have a lot of times done some research if it is something where they have connected to our industry because of their academic discipline; they will ask him quality of life types of questions. They want to go to a community where there is a rich, vibrant urban core, so everybody is really excited about the "city feel" and all the things you can do to invest in your urban core. The suburban life for most of these young professionals hasn't really grown that appeal just yet. So definitely an "attaboy" to all of them for their investment in downtown redevelopment, that is really an attractive thing. He will never forget being on the campus of Langston University, Oklahoma and having a student talk to him about downtown redevelopment in Topeka. Now he just happened to be studying urban planning or something like that so it was important to him academically but the fact that he knew what was going on in Topeka, KS and suddenly that appeal and people want that. They especially want to see development, when you are talking about your nontraditional or underrepresented candidates; they want to see some development in the areas of the community where maybe it's been lacking historically. So the East Topeka Learning Center which they just heard about, for both hats he wears he is thrilled about that and he thinks it is a wonderful investment, they are to be commended for their wisdom because he thinks what they are going to see is a community that is ready to take hold of that and there can be nothing bad that comes from that.

Also from the other side, for their workers to be, it is incredibly important that we recognize that there is a tremendous role in economic development and quality of life for our K12 institutions to play. So while the majority of the responsibility for that falls to our state and to our local districts, he thinks it is really important to recognize that they really have an opportunity often to partner with their local districts in doing things that are going to prepare students for the 21st century workforce and be competitive with their new competition which is no longer like it was when he was a kid where you compete with locals, it is global now. So a couple of things that come to mind where he knows where there have been very fruitful partnerships, and this is with the business community as well, you have seen the Topeka Center for Advance Learning and Careers, which is slated to open later this academic year and their initial classes will start being taught the next academic year, which is an exciting thing. Basically it is an advanced studies center where students from all kinds of different disciplines will be able to come, do some projects that are kind of like project based learning integrating all kinds of different disciplines and actually work in partnership with different businesses to try to solve some of the issues that they are facing. That is a pretty exciting thing that gives students real world experience, he thinks it also helps them understand that there are a whole lot that they can do and that they can be when they grow up, right here in Topeka and they don't have to go to any other communities to do that. While we know their investments are definitely important, they are critically important if we want to attract the kind of talent that is going to help us win the future. We also know other things that businesses do in partnerships and any kind of influence they can have with them is very important. The business community has a lot they can do. And he is a little bias but he just happens to think that some of the great things that they do at Westar Energy can be replicated by many other businesses who would like to remake themselves.

Commissioner Cook asked with him working for Westar and serving on the school board, where does quality of place enter into attracting a family to come to Topeka or stay in Topeka?

Mr. Woods responded when he is recruiting employees, that is a big deal. People nowadays, and it is not just millennials, they will recruit people who are mid-career folks who are established, who will actually find a place they think they want to live and then look at that zip code and start looking for the kinds of employers that are going to have the jobs they can actually work in and earn a living. It starts typically with the place that they feel like they can see themselves. They want some of the things that you heard, with the economic development you are going to be able to attract the people with all kinds of skills, they are going to want to come to your community when there is growth and development. Most people nowadays, especially with millennials, they want it to be equitably shared growth. They don't want a dead side of the community and a dead side of the community. Obviously education, if you have a young family that is kind of your core issue, that is the big thing that you want for your kids to have it better than you did.

Angel Romero, VP of Resource Development, United Way of Greater Topeka, Chair Elect Forge Young Professionals. He was asked to talk about what quality of place and quality of life means for himself as a young professional. He started thinking back on himself and how he got to Topeka and what made him want to stick around. He came here from Junction City for college to attend Washburn and he drank the Kool-Aid after that and got hooked on this place and wanted to stick around. He had a great experience at Washburn, loved his time there but it was through his experiences that after he started getting involved in the community that he really started to get hooked on what this place was all about. What were the things that really piqued his interest and curiosity? There were four things that came to mind; the things he thought were really important when it came to quality of life.

> The first is community pride. He and his peers want to be part of a community that is proud of itself and takes pride in what it is doing and what is happening. And you see that all around the United States and even in the state, when you look at other cities that surround us. People are really proud of what is happening in their community. And it doesn't mean those communities aren't perfect or don't have their own problems or challenges, but people can still take pride in their community. And that was something that was huge for him to live in a place where people are proud to call home. He gets to sit on the Community Engagement and Pride subgroup for Momentum 2022 and one of the things that they have talked about is the issues that we have with our own self-pride. Our biggest challenge to community pride is ourselves, but if our biggest problem is ourselves that means our greatest solution is ourselves. So while we have a challenge there we also have a solution and he thinks we are seeing it by steps that governing bodies are taking and businesses and that people are taking to say that there are really exciting things happening in this community and we need to be proud and vocal about them. That kind of success begets more success and as we see that start happening we are going to see more people do that. But he thinks having a strong message about the great things that are going and not being afraid to acknowledge that we still have challenges that we want to address.
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> Of course, as one of the "40 something's" he wants to live in a place that is fun, where he can have a good time and enjoy himself, and people who come to visit can enjoy but what that really means to him is he wants a place that is unique and different. With no disrespect to chain restaurants, he can go to a Chili's or an Applebee's in any community, he can go to a shopping mall in any community and they are great places. But he wants to go to a place that only Topeka has, those places that are cool and unique and that he can brag about to people from out of town and where he knows he won't find any other place. And that is one of the most exciting things that has happened in the last 5-6 years is this explosion and growth downtown and even around

the community with things like The Brewbank and other breweries that have sprung up around town. There is lots of exciting momentum with new businesses and new projects that are really going to enhance that quality of life. And as people see those things begin to happen it will spur more growth. But the more things we can call our own and that don't look like any other place is where he wants to be and that he wants to be a part of.

Diversity is another thing that is really important to him. We have four pillars in the Forge organization and one of those is Diversity & Inclusion. He wants to be part of a community that not only has diversity but also values that in lots of ways. So that means through policies from government bodies, through organizations, through the way our community acts and operates. He values and wants to see diversity and being exposed to people from different cultures, religions, different walks of life, being able to experience that is one of those things that he thinks Topeka has an abundance of that we don't really talk about. But we have such a diverse community and he thinks that is where a lot of our strength is, is being able to bring out that diversity and you have people from so many different parts of our community that can come together. That takes both policies and investments from our businesses and organizations that are willing to invest in that work, but it also takes work outside of that too.

We as young people, especially millennials, there is a lot of research into what we are thinking about and what we care about and one of the things that they have likely heard is that we care about issues affecting other people. That we want to live in a community that cares about our neighbors and people in the community. We value equality and inclusion. This is something that is near and dear to his heart not only as a young professional, as someone who works for a non-profit organization, and knowing that this is our one community that we all inhabit together. So how can we grow stronger as a community together and that is reflected through how we invest in our community. Making sure there is fair and equitable funding for all parts of our community. It looks at business investment from the private sector, how are we supporting all sides of our community growing together. There is lots of work that needs to be done in that area.

He has said it before he doesn't think Topeka is a perfect city and he doesn't think any city is but we shouldn't let that stop us from investing in things that are going to move our city forward and taking pride in those things. He is really excited personally for the next 10-20 years to see what happens. When you look within Forge there are so many exciting things and momentum there.

Kurt Kuta, GO Topeka Board Secretary; President & CEO, CoreFirst Bank & Trust. Momentum 2022, Quality of Place Committee Chair. He was asked to frame the quality of place question around Momentum 2022. It is our roadmap; it is our strategy, many people here in the room have served on the steering committees, now the implementation committee and some workgroups. A lot of discussion on what holistic economic development means with holistic being the key word. What we are talking about tonight is trying to define what quality of place means and where it fits. One of the early meetings we had with Market Street when we were going through the steering community was a discussion on what is this all about. And one of our facilitators came right out and said this is really a battle for and the quest for attracting and retaining people and talent in your community. To have them choose to work, live, thrive, and enjoy your community. Without that you don't grown and if you don't grow, you don't attract new companies and then what you have for your existing community institutions they usually become negatively impacted and that includes existing companies, businesses, government, schools, nonprofits, churches, and more. And that comment really hit him and stuck with him and he thinks impacted a lot of others and we really started to focus our discussion around that.

So with that he took a look at the strategy framework that was provided in our road map. And right on page 3, it goes in to say "Topeka-Shawnee County's talent pool is threatened by factors such as persistent net out-migration and relatively small gains in educational attainment. If the status quo holds, the community's workforce is likely to become smaller and less competitive. Changing this trajectory will require a multi-faceted approach." How he saw that was the old game of economic development, the rules of economic development that he has been involved in really don't apply anymore and we need to look at things differently. The plan goes on to say "The community must improved its ability to produce "homegrown" talent and offer the kind of quality of place amenities – downtown, social offerings, aesthetics, housing options, etc. – that educated and skilled individuals demand." His comment to that is "and to keep them here." It goes on to say "Investments in talent and quality of place must therefore be seen as crucial parts of a holistic approach to economic development." It is right in our plan saying it is married right to it. Other parts of this go on to say "The public input process revealed that Topeka-Shawnee County suffers from deep and persistent low morale. Expanding economic opportunities and improving quality of place can go a long way toward improving these perceptions in a short amount of time." Going on to page 15 it says "On the matter of how to better attract and retain talent, Topeka-Shawnee County stakeholders contacted through the public input process were in strong consensus on one of the most important things the community must do: improve quality of place." One thing that did strike him when he reviewed it was it said out of all the primary jobs in the community that pay at least $40,000, and that is our target with giving incentives, it said that 40% of those are held by individuals that live outside of our community. So the 12 jobs they just approved that we hope we get - 5 of them outside of the community. Some other things that "Topeka-Shawnee County generally lacks the type of mixed-use "live-work-play" environments that are increasingly in demand, particularly among young professionals and empty nesters."

So that is just from the plan, and as we get into our workgroup, we got into this and we started to tackle several things and we are trying to define something. And some of these things are big, they are broad in range, and quite frankly it takes a lot of funding. So just to give them a flavor of some of the things they are talking about: one of them is to provide some education that can be used throughout our community for traditional incentives - TIFF's, CID's, Star Bonds, etc. so that people can better understand how all of these programs work along with the risks. Those types of programs are tried and true public-private partnerships that he thinks are going to be needed to improve our quality of place. But not everybody understands how they work and there is risk. So we felt that maybe we needed to bring some education forward. We talk about where are these people going to live if we attract them here? Certainly again private investment whether it be for a single family residence or multi-family but there are also some things we need to figure out how we can work with some programs for existing stock to improve existing properties or repairs as well as promote some other programs that are already out there. Whether they be through our governmental agencies or some nonprofits to promote so people can use those and make sure we are leveraging that. We have barely even touched on our subject of affordable housing. He saw recently in a forum on that, that we are short on that supply to the tune of about 6,000 units. Where does that fit in for quality of place? Infrastructure, a big topic in quality of place. We are talking everything from street repairs, sidewalks, bike paths, bikeways, parks, facilities in the parks, better traffic light flow. How do you fund that out of the hopefully $6 million we are going to raise through Momentum 2022? That is a city and county government issue. How do we tie that in? We figured out that blight is an issue in our group. If they weren't aware we have some blight in our community. We said we can't ignore so we started talking about code enforcement. The city has a code enforcement program, how can that best be supported. From homeownership, to landlords, to commercial properties that are not being used or maintained properly, do we consider promoting a land bank, what do you do with that land after you bring it in, that is all being discussed. Then we have also talked about things such as gateways, leading

people to the attractions we have today, how can they find those. A lot of this, how do you fund this? At the last JEDO meeting we talked about some carry-over money. Is that a source we need to start talking about? But he thinks we need to understand how this all fits in first.

Cody Foster, Chair Greater Topeka Partnership Board, Co-Founder Advisors Excel. Sitting here and observing just all the awesome things and the Brewbank team and sitting through that and seeing the top ten finalists and how passionate they are about Topeka right now and the good things that are going on is pretty neat to see. All of them are to be commended because from a leadership standpoint to see the progress that we have made even in the last few years is a credit to the fact that they are open to having this discussion on quality of life. As he thinks they have heard from a lot of people it is a big deal right now in our community and is being discussed and to have them discuss it from a leadership and economic development standpoint is really important.

He is representing three different roles in this topic. He is the Chair of the Greater Topeka Partnership Board and this is a topic that has been brought up in every single board meeting. The second role is as a business owner who has about 500 employees here in Topeka and they are planning on hiring somewhere around 90-100 more this year. They have been able to relocate people from other parts of the county here. One of the things they like to say a lot is they feel like they have built a destination employer that can bring people in. The challenge they have started to have is sometimes Topeka is not viewed as a destination location. He was reminded of that in the last month. They had two younger gentlemen who moved here, one from Chicago, one from Indianapolis. They encourage all of their employees to live in Topeka. And both of these guys, both under 30, lived in Topeka for a year, they have both moved to Lawrence in the last month because they don't feel like there are a lot of things to do. So that leads to the third role and that is as a quality of life investors that currently has about $30 million in projects going on downtown, one of which is opening in sixteen days (The Pennant). The amount of excitement of that opening that they have had is unbelievable just the people who have reached out and are excited about that opening.

So the primary reason he has decided to make some investments in what he would call these quality of life projects is because it was getting harder and harder for their company to attract great talent as they continue to grow and he thinks when you hear some of the numbers of the unemployment rate that we have and how low that it is, this is a conversation that a lot of CEO's around town are having. They are all starting to compete for the same people. So he realized if they were going to grow the population of employees that he had to do some things to address what tends to be the number one topic. He wanted to do some economic development research for them. At Advisors Excel - of their top 50 income earners in the year 2017 - 21 of them do not live in Topeka. Those 21 people represent $14 million in income in 2017. Now to be fair 9 of those 21 do live in Shawnee County. He thinks they employee half of Silver Lake and Rossville. Which leaves 12 of those 21 who live in either Lawrence or the Kansas City area. Those 12 represent almost $8 million in income in 2017. So he sat down with all 21 of those employees in preparation of this and he asked them why they don't live in Topeka, what is the number one reason. The number one reason was quality of life, that there is nothing to do in Topeka when you compare it to Lawrence or Kansas City, that there are just a lot more options elsewhere. That was the number one answer for 9 of the 12 who chose to live in Lawrence or Kansas City. Number two answer was crime and number three was the schools. The schools were a big topic for those that chose to live in Shawnee County but outside of the City of Topeka.

He thinks one of the things that he saw when they started talking about making some investments is we are in a vicious cycle. When 40% of your top income earners choose to head out of town and spend their money there that is just a cycle that keeps us from moving forward as a community. So looking at economic development from the standpoint of how do we improve the number one thing that is preventing people not just from working here but also living here and spending their money here is a really important topic. He thinks we have the potential to make a huge impact. Whether we earn or get some of those people to move back to the community or whether we just quit letting people leave here because we do address some of the reasons they are leaving, that is a really great opportunity. He will end his comments with this, qualify of life as economic development is really hard and how do you measure and determine how that money is spent. His only thought on that, he and Commissioner Archer were having a discussion on the quality of life project in Topeka this weekend on Twitter. But what hit him about that is that people are never going to completely agree on a project. What he thinks we are hearing is that there is an overwhelming support to use money to develop more quality of life projects here in Topeka. We have elected all of them to lead us through all these different projects and not everyone is going to always agree with what those projects are but they have all done an incredible job in leading and the community is saying we need more investment into quality of life and we trust all of them to make wise decisions around what those projects are and figure out a way to determine what projects are worthy and move forward.

Councilman Padilla stated he thinks Mr. Foster is one of many corporate citizens that Topeka has the privilege to have in Topeka and he thanks him for being the role model for others for businesses to work with the government to bring these changes about.

Mr. Foster replied he appreciates that and there are many that came before him. What he would say about that is that is the most exciting thing is that never in the 20+ years that he has lived here has he seen the commitment both on the private and public side to make Topeka a better community. There really is some incredible momentum.

Councilman Coen asked if he was finding that employees that get married, do they end up moving back to Topeka for the convenience?

Mr. Foster replied no they don't. That is kind of his mission right now. What happens is a lot of those 12 people primary live in Lawrence. A lot of them moved there either when they were single or newly married without kids. Now almost all of them have young kids and the kids are more engaged in stuff. So he has been selling this idea of the commute from Lawrence to Topeka, but here is the challenge with that now. They have established roots in those communities, so uprooting and they are friends with their neighbors, he has had a lot of those conversations. He isn't going to go after the young, single person who wants a lot of stuff to do, he tries to go after the person who has a young family and doesn't want to drive 40 minutes every day, but all of them say they can't ever see moving back because their kids have all their friends there and they are involved things, which he thinks speaks to the urgency that we have to stop the flow of people going out because as they move out and establish roots, it's no different than the reason he lives in Topeka and he is so passionate about it, is because he has roots here and he can't imagine uprooting and moving away. He thinks it is our best opportunity to try to continue to attract those people back in but it's tough once they get established in another community they don't want to uproot that and move back.

Councilman Lesser stated he gets the quality of life. And one example that people may not remember is we had a really up and coming company Newtech that developed the video toaster and was just killing it. And they reminded him a lot of Advisors Excel just really setting the world on fire and he is sure it was much more complicated than he is going to make it but he had some friends who worked there and they

left because they wanted something to do. All the guys were going to Kansas City and so he gets it and we have to in order to keep our job force, to make companies here viable, we have to create things for people to do and destination activities for them. We have had the Porubsky's, the Bobo's, the Northstar, all of these things thay have been here forever, that people know of and we need to build on that and create the Norseman's, the Pennant's, the Evel Knievel Museum's, all those different things that are going to want to make people stay and have something to do.

Commissioner Cook stated before we go into discussion, Molly Howey with GO Topeka helped him set up these people to come speak tonight as a representation of our community. The young professionals, the business owners, the Momentum 2022, the Greater Topeka Partnership. But since we have him here, he would ask Skip Smallwood to come back forward and just briefly talk to us about where does quality of place factor into economic development from the ADO standpoint.

Skip Smallwood stated that he found the comments very interesting and he wishes more communities would have these kinds of discussions. Really the short answer to his question is yes, there definitely is a direct relationship and correlation between the quality of place and economic development and he will address it more from the prospect side. He doesn't know how many prospect meetings he has been involved with, and naturally they are going to look at logistics, infrastructure, those are all critical. But sometimes there are those intangibles we just don't know about, we don't know why the decision was made, we think we have everything they are looking for and then we find out that, thanks to the internet now there is so much data out there, that a lot of these individuals are looking at these communities and they are really looking at what is there and the more important question they are asking is if they are going to be able to attract talent and sometimes that knocks a community out. Even though they have all the other attributes they are looking for they are just not convinced they are going to be able to attract the talent. And even your existing companies are now faced with this challenge. Westar for example, he used to work for a utility and they were constantly struggling as to where they were going to find their future workers.

> So what are they looking for? That is the question that everyone is asking, so they are looking for what kinds of investments are you making to your downtown, because they are looking for vibrancy and looking for what engagement is going on with the downtown area, are there new restaurants, new activities. They are looking at recreational things, because people are outdoors. They are looking at your educational systems, they want to know how much investment is being put into the public schools – STEM is very critical, we have got to remember that a lot of these individuals are looking at their children, they want to make sure their kids go to schools that allow them to be engineers or scientists or whatever they want to be. And they are looking at crime, he knows there was one community that was looked at for a project and they just could not answer the question as to why they had a high crime rate. The statistics are there, even though you can debate the FBI numbers, which sometimes is used, because in that particular case the site visit included the future plant manager which no one knew about. Back home his wife was "googling" that community and she had a list of everyone one of the towns this company was visiting and she, believe it or not, was going to have some input in where this company was going to locate. And we forget about that sometimes. And because this community had a high crime rate, they got knocked out. So that is the name of the game now, even though infrastructure and logistics and all those things are very important. You are seeing the talent issue arise more and more, the workforce development is becoming very critical.

And he thinks what the Momentum 2022 Strategic Plan is doing, one of the goals is homegrown talent and he thinks that works well with quality of place. So really the challenge for them and GO Topeka is to try to find those key performance metrics that tie back into the plan so they can measure their progress and then have that information available so all those outsiders can see and also your existing companies as well. He didn't know Topeka that well when he came here but the few days he spent here, he walked away with a very favorable impression and when you show a town and begin to demonstrate that you can do some things and you are trying to better yourself, that sends a loud message. But he will say in a prospect meeting, lots of times they are looking beyond what we normally think about and looking at your community as a whole and if they are going to be able to attract workers and have happy workers. He will end with this, he knows one community that employs about 2,500 employees, it is a huge OEM manufacturer, this small community. They are having trouble attracting engineers, which is primarily what they are looking for. They don't have the housing stock and it is just such a small community. These are individuals that are coming from Georgia Tech, Vanderbilt, very highly regarded engineering schools, and they don't want to move there. They say they will come there but they don't want to live there and they are willing to drive over and hour to get to the plant. So you have to think about that, but he thinks they are at a good point, where they are beginning to put together their performance metrics, but they have to tie it all back to their plan now and if talent is what they are looking at, those are things they need to identify. And he knows we always talk about the millennials, but don't forget about guys his age who are thinking of retiring soon. Those people are looking around at where they want to live, and looking at things like healthcare, broadband, airport connections. So you have to think about the whole broader picture but it all ties back into economic development.

Commissioner Cook stated bringing us back full circle to where we began, our 2018 Cash Carry Forward Agreement that we discussed that the last JEDO meeting, we had started a discussion of Quality of Place. And just to pick on Commissioner Archer, he thinks he had brought up when the voters voted on the economic development incentives with the sales tax, it was for economic development and where does that factor in? He knows this is an ongoing discussion but does quality of place have a role in our economic development?

Commissioner Archer responded sure it does. But quality of place is wide open. He made a list – is affordable housing a quality of place issue? You are darn right it is. Parks & Recreation? Absolutely. TPAC, Roads and Bridges, Downtown Plaza, the East Topeka Learning Center, the Topeka Zoo, Kansas Expocentre, they are all quality of life issues. But the interesting thing is, the Topeka Zoo and the Expocentre were on the ballot. People voted for those. That is the difference. In his view to do a lot of the things that we want to do with quality of place, we are going to need to have tax money to do them. We are going to have to have a referendum, because it is going to cost a lot of money to do the things that we want to do. So in his view they might as well start talking now about referendums on taxes for quality of life and quality of place.

Mayor De La Isla stated she things the big question here is what is economic development? Economic development simply summarized is getting jobs and the people to work on them because eventually when you have good jobs and you have people living in the community, you have higher revenues and those revenues help you provide all of the other things that you are supposed to provide as a city or as a county. She wants to remind them, because he who forgets his history is doomed to repeat it. You want to talk about momentum, 2010 Kiplingers, in 2007 this community started talking about downtown redevelopment and bringing back the core of our city. It was a group of volunteers, citizens of the City of Topeka who said selflessly without being paid to do the job, said we are going to get together and we are going to bring back our downtown. That was 2007. In 2010, we were recognized by Kiplingers as one of the top ten communities to be looking at for the past ten years. Let's see what they said. "Like any city,

Topeka has room for improvement. Its downtown district, near the picturesque capital dome empties at 5:00 p.m. Various groups and business people are collaborating on a downtown revitalization project and the development of an artists' district is underway at the Kansas River." That was in 2010. We seriously have and we are in the middle of a war for talent. We have a 3% unemployment rate. We are hearing not only from our young people like Angel and Gabe, we are hearing from people like Cody Foster, we are hearing from people all over the community telling us they are starving for an entertainment district so that the young people who are coming into our community can go ahead and enjoy this.

> And if we want to go ahead and get very legal about the situation, Cody Foster said a word that really resonated with her and he said the word leadership. And if we are going to be leaders, it is their task according to the Interlocal Agreement, to determine what economic development really is. In the first page it says, "For purposes of this agreement, economic development includes: research, target marketing, existing business retention and expansion, new business recruitment, infrastructure development, site acquisition, incentive funds and workforce training and expansion, support economic development for socially and economically disadvantaged individuals and/or business enterprises and consider inclusion of urban economic development programs related to youth employment and the rehabilitation of blighted, derelict and underutilized facilities and infrastructure (for purposes of attracting economic development prospects), in addition to other related activities," It is telling us in there that we have the language that we need in order to address the economic development as a priority and quality of life as a priority. We have the language, so she does not think we are bound at this point in time, the language actually gives them the freedom to determine what is economic development and what makes a community thrive. We are being told by our community, we are planning on it with Momentum 2022, and she things that we have a wonderful opportunity to start talking about something new and have the leadership to say these are the things that we are going to invest in, have a policy about it, so we have a chance to have a very frank discussion. But she doesn't think we have to go back to the ballot, we have the language right here that not only is authorizing them but it is calling them to be leaders in this area and really listen to what our constituents are saying.

Commissioner Cook stated he doesn't know about going back to the ballot or if there may be issues that we need to have a referendum on, but he doesn't think all issues would need to go back to a referendum. But for him, how do we measure our success? How do we measure what falls into economic development versus what is our role and what is not our role? And he is looking at how do we set those policies of what falls into Quality of Place and what does not? Because before we start down a path of establishing a project or setting aside funds for a project, we need to establish that it falls within those policies, and of having that metric of measuring that success. And he thinks that is an important part of that policy. He would really like to hear from all the JEDO members, voting and nonvoting, especially those who are new to the City Council.

Councilman Emerson stated he will admit with the downtown redevelopment, he was a skeptic about 5-6 years ago because he remembers in 1987 or 1988 we did the brick walks and stuff and then in maybe 2005-2006 we did the street parking thing for about a year. And even though he loves any construction project, he just thought here we go again, the third time spending millions of dollars. But he has to say he was wrong because shortly after he was appointed, his daughters were still in high school at the time and one night they asked if they could all go to downtown Lawrence on Mass Street. And he thought he is City Council now and he needs to try to support the City, so he said let's go to downtown Topeka, there is a lot of stuff to do and it was really pulling teeth to get them to do it. But he made a deal for them to go there for 20-30 minutes and if they don't like it they would leave and go to Lawrence. They went down there and saw all the pocket parks that are now there, they went to Cashmere Popcorn and there was a jazz band out playing by Hazel Hill and it was great. His kids were doing stuff and he and his wife were standing out talking and he said wow he was wrong. He didn't have the vision for that and that is

something that has haunted him ever since. He needs to have more of a vision for what things can be not what they have been. He does think quality of life is a critical part of economic development. He does agree with Commissioner Archer on how do we narrow that down because he sees that as the big issue that we are going to have. He can foresee 100 people wanting their project be the thing we do and that is going to be the tough part.

Councilman Padilla stated he has grown up here and has worked for the City for almost his entire adult life, he is not unfamiliar with the challenges the governing body is trying to overcome. He can remember growing up in this town and downtown was the place to go. You shopped here, you ate here, and you just hung out with your friends. That is when Topeka felt like it had an identity. But then things changed and we decided to just focus on one side of town, we were going to put all our eggs in that basket and abandon what we already had. That is the thing that he thinks hurt us and hurt his memory of Topeka. Why don't we cherish what we have, maintain it and grow it and go from there. Now that was then, now we have to look towards our future without looking back but he thinks we do have to look back because those are the things that have been talked about tonight, roots. You develop those roots because of your experiences in this town. And yes quality of life is totally essential to any kind of economic development in any city. He encourages some of the comments said earlier about a renaissance, about an energy, a momentum as it were to move forward. Talking has been good and it is necessary but jump off the ledge and let's go forward and continue that effort.

Councilman Mays stated he is a lifelong Topekan as well. He would say that quality of place is one of the main reasons he decided to run for elected office. When he sees Topeka now versus when he was a kid he is encouraged. He looks around and he sees opportunity everywhere. Just looking at Kansas Avenue, the bones are there but we still have a lot of work to do. We have a lot of quality things to do in Topeka but what we don't have is a central district where we can walk from place to place. And he does travel and typically when he is in other cities the first thing he does is get on google or yelp and find the local establishments so he can take in the culture where you can find in that particular place. And in Topeka if you want to do that, you have to have a car because you might want to check out Blind Tiger, or Fuzzy's Taco Shop, there is not a place where you can take an Uber and then walk around for a couple of hours. He doesn't know exactly how we narrow it down, as Commissioner Archer was saying, but he thinks it is a very important piece of economic development.

Commissioner Buhler stated she knows we have used the terms "quality of place" and "quality of life" and she doesn't know if they are the same thing or all of the above. To her, community development is economic development and when we started out with GO Topeka with the holistic strategic planning, it was a GO Topeka Strategic Plan and it developed into community development is economic development. She would argue that we are doing some transportation initiatives, we are doing the East Topeka Learning Center, we are looking into Broadband, 712 Innovations, those are just a few examples that are included in economic development. And those are quality of life, quality of place. But she will also say there is not enough money to do everything. So how do we approach this, what is the process and how do we prioritize and how do we measure the impact on any one given project and having the metrics to tie it back into the plan.

Councilman Lesser stated that he would add that when he thinks about quality of place, he thinks of disposable income and things people will do in their free time. And he learned a little bit from Commissioner Buhler when they worked together on Rossville, on the pool as quality of life, and the really nice park there is quality of life, and those are things that help to keep people from moving elsewhere. So looking back on that on a small scale helps him think about doing those things here on a larger scale.

Commissioner Cook stated from the video that was played earlier, it said we may not have all the answers and tonight he can guarantee we do not have all the answers. But by having the opportunity to hear from the community and different participants and stakeholders, and hearing from the JEDO Board members, we have had a healthy discussion tonight and that is one thing he thinks was needed before we start anything new. He will try to work with the comments made tonight to try to work towards maybe something we would look at the May JEDO Meeting as to this ongoing discussion of where does quality of place factor into our economic development plan and a pledge to the carry over funds or any other funds we may have.

Mayor De La Isla asked would it be too bold to ask this body to consider, for Shawnee County it seems like if we consider what we have all heard not only from the community but hearing from other people, it seems that the center corridor on Kansas Avenue seems to have occurred several times. People saying that we lost that center and core and that they are looking for a dynamic core which people can navigate. And when she thinks of a dynamic core she doesn't think of just downtown Topeka, she goes from NOTO all the way down. Would it be too bold for us to maybe consider as Commissioner Cook is thinking this through and putting something together, putting that center corridor one of our top priorities for quality of life because it seems like we have been having the conversations since Kiplingers 2010 that this is an area that needed intensive attention.

Commissioner Cook responded he doesn't know if we can limit it to just one part. He thinks quality of place does factor into our downtown really from the riverfront all the way down.

Mayor De La Isla replied she isn't saying limiting it but saying that as we are trying to narrow it down, to say that will be one of our priority areas.

Commissioner Cook responded he thinks that is something to look at having more discussion at the May JEDO meeting as we look at an actionable item.

Commissioner Archer stated another idea that we haven't really talked about is take the $2 million or look at other surplus, there is a lot of money in GO Topeka that could be used in the community. We could split it and give the City half and the County half and those governing bodies could then make their own priorities. If the corridor is the City's priority, they can spend the money there. If the Expocentre is the County's priority, we would spend the money there. But that is always an option or something to consider as we take whatever surplus we have.

Mayor De La Isla replied she appreciates that sentiment. However, she thinks the beauty of having this body is the fact that we are all working together to better the community and community isn't limited to City or County it is all of us. And going ahead and saying we take the easy way out and divide the money and you take your ball home and I take my ball home and we will play with them apart just completely obliterates the beautiful effort of all of us coming together and planning together for our community and as leaders establish that vision. She would highly encourage all of us working together.

Commissioner Cook stated let us come back in May with a proposed actionable item as to this. He will also be working with legal counsel, Jim Crowl, Shawnee County Counselor, to help draft whatever the item may be.

Commissioner Buhler asked would it be a proposed item JEDO would vote on or a proposed process by which we would decide on which projects would be eligible, she just wants to clarify what we would be voting on in May.

Jim Crowl, Shawnee County Counselor stated he thinks that would be JEDO's decision to decide do we want to draft a policy and move this discussion forward based upon a draft policy or are we not there yet and we need to have more of an outline and define and discuss parameters that we then use to draft policy. He will do what they want him to do and will do whatever he can to help, but he thinks that is the decision of the JEDO Board to direct how far we go with this.

Commissioner Cook stated in the past JEDO has used a subcommittee to help bring things back to us. Would there be a direction from this body to have a group of City and/or County that would help work on that proposed actionable item and if so who would be willing to serve. He sees Mayor De La Isla would like to serve and Councilman Lesser would like to serve and he is also willing to serve. The three of them will work together to bring an item back for discussion and possible action in May.

ITEM NO. 13: General Public Comment

The following individuals appeared to speak for general public comment:

1. Carol Marple stated that having come to these meetings over a number of years they are 1,000% better and this was a good meeting. When Matt Pivarnik started with GO Topeka he hit the ground running and she doesn't think he has taken a breath since he got here. He and his staff have brought a lot of needed positive changes to GO Topeka. There are still a couple issues she still has. She would like to know, when we talk about numbers she would like to see a list, she would like to know what they are. She does not like generalizations because she wants to know where her money goes to. She wants everyone to think about what have we heard tonight, what area have we heard about and that has been Topeka. She wants to remind them that people that live outside of Topeka also pay this sales tax. And she thinks it is time that the communities around Topeka and different areas, Montara for example, and our small towns, it is time for us to be included. She heard Rossville and Silver Lake mentioned in passing as good places to live, and that is right. But how about having some programs, classes, satellite offices, do some stuff with 712 Innovations in those small towns. You have to remember we are paying this tax too and we would like to see something that they are going to benefit from. She doesn't come to downtown much, maybe she would if it had more to offer, but she does things with her grandkids in Rossville, they have a wonderful playground and the pool. Auburn doesn't have anything. We need to spread it out, we cannot forget about the community because we are also taxpayers. She does believe that quality of place does have a place in economic development. If we don't have quality of life, quality of place, we are not going to have growth.

Commissioner Buhler stated she did want to clarify something that the cities of the 3rd class – Willard, Rossville, Silver Lake, and Auburn – they all receive the County half-cent sales tax, but those monies goes to those governing bodies and Willard does have a Mayor/City Council form of government, but they receive those sales tax dollars directly to those governing bodies and those governing bodies choose to do what they want with those sales tax dollars. So the difference being, with City of Topeka and Shawnee County as governments have decided to come together in the Interlocal Agreement and that is how have JEDO who then contracts with GO Topeka. But those cities do receive those dollars through the half-cent sales tax. And she does know a few years ago there was a feature on how some of those cities were using their half-cent sales tax dollars and some was for the pool in Rossville and other projects in those communities.

NO FURTHER BUSINESS appearing the meeting was adjourned at 8:42 p.m.

Joint Economic Development Organization Board Minutes
March 14, 2018

City of Topeka Council Chambers, 214 SE 7th Street, Topeka, Kansas, Wednesday, March 14, 2018

The Joint Economic Development Organization (JEDO) Board members met at 6:30 p.m. with the following voting Board members present: Shawnee County Commissioners Shelly Buhler, Kevin Cook and Bob Archer, City of Topeka Mayor Michelle De La Isla, City Councilmember Michael Padilla, and City Councilmember Michael Lesser. Shawnee County Commissioner Kevin Cook presided as JEDO Chair. The following voting JEDO members were absent: Deputy City Mayor Brendan Jensen.

The following nonvoting JEDO Board members were present: City Councilmembers Sandra Clear, Tony Emerson, and Jeff Coen. The following nonvoting JEDO Board members were absent: City Councilmembers Karen Hiller, Sylvia Ortiz, and Aaron Mays.

Others present who presented and/or spoke before the Board:
Jim Crowl, Shawnee County Counselor; Zach Snethen, AIA, LEED AP, HTK Architects, PA; Betty Greiner, Shawnee County Director of Administrative Services; Barbara Stapleton, Director of Workforce and Education for GO Topeka; Jeff White, Principal, Columbia Capital Municipal Advisors (appearing via telephone)

ITEM NO. 3: ACTION ITEM: Approval of Contract (C1-2018) between JEDO (Owner) and Champion Builders (Contractor) for the East Topeka Learning Center Renovation and Addition Project.

Commissioner Cook stated this item is to review the contract between JEDO and Champion Builders for the ETLC project. Before we begin there have been some developments that have occurred in the last 24 hours. There has been a memorandum submitted by Jim Crowl, Shawnee County Counselor, if he could address the changes that have occurred.

Jim Crowl, Shawnee County Counselor stated for several months legal counsel for the City of Topeka and legal counsel for GO Topeka have been working on trying to get the sales tax exemption certificate in place for the project. As they may already know the property is owned by JEDO, and the Board of Tax Appeals (BOTA) has already determined that the property is exempt for property tax purposes. So he thinks the assumption all along was since BOTA determined that JEDO is a municipality and a political subdivision capable of having a property tax exemption that it would be a slam dunk that we could also get a sales tax exemption on this project. Well we missed the slam dunk and it bounced off and the Kansas Department of Revenue (KDOR) has indicated that in their opinion JEDO would not qualify for the sales tax exemption on the project. If we do not have the sales tax exemption on the project it is going to add approximately $291,000 to the cost of the project.

> We have had a series of meetings with KDOR to come up with different permutations of setting up this contract, at one point we thought we would keep the current contract and just add Shawnee County to the contract, because we know that Shawnee County is exempt, we have public projects we construct all the time that are exempt. We had our initial meeting with KDOR about that, the response was basically of course if Shawnee County is involved they would be an exempt entity. Later on today we received a communication that upon further review by KDOR they felt that we should not have JEDO on the same contract. The contract should either be with Shawnee County or the City of Topeka if we are going to have a sales tax exemption on the project. His recommendation as stated in the memorandum is if they want to move forward at

this time on this project JEDO is going to have to make a motion to either have Shawnee County on the contract or the City of Topeka, one of those two entities, in able to move forward and construct the project.

Commissioner Cook asked if we move forward with Shawnee County being on the contract would this be something that Mr. Crowl's office would be able to monitor and do we know whether or not this would be going through the County's Audit Finance Office?

Mr. Crowl replied yes, he has already spoke to Betty Greiner, Shawnee County Director of Administrative Services, on how to set up the payment process and really that is key to KDOR that the payments actually come from an exempt entity. So we would need to set up a process were payments would be made by Shawnee County and then Shawnee County would need to be reimbursed back out of the project budget for those costs. And now let him take off his JEDO Counsel hat and put on his Shawnee County Counselor hat, from Shawnee County's standpoint we are going to want to make sure we have protection in this arrangement for Shawnee County that any amounts that are necessary to be expended on this project will be reimbursed back to Shawnee County, otherwise he wouldn't recommend that Shawnee County enter into this contract.

Commissioner Cook asked in the event that the JEDO Board would approve the contract in the name of Shawnee County, this would be an item that would then come before the Shawnee County Board of Commissioners.

Mr. Crowl responded yes, it would need to be a contract that is then executed by Shawnee County. It will be the same contact, but Shawnee County will be substituted as the owner and we will have to go back to the general contractor and have them have bonds and insurance and any other applicable contract documents in the name of Shawnee County.

Commissioner Cook asked so before we even get to the approval of Champion Builders as the contractor, or how we came to that point, are there any questions regarding this?

Commissioner Archer asked if we have an agreement in place right now that we would get reimbursed for the overages and liabilities, anything that may come about as part of this contract?

Mr. Crowl responded there is no written agreement that has been drafted.

Commissioner Archer stated we just found out about this. Mr. Crowl called him about an hour ago. So he is still trying to process this to be honest. He is trying to think about all the ramifications, the liabilities, what Shawnee County could be committing to. He knows we have had dealings with Champion Builders in the past that haven't gone very well, and so he needs some time to think about this. Would it be possible to defer consideration of this for two weeks?

Commissioner Cook stated he thinks one of the problems we come into doing that, with all due respect, is that we are already on a tight timeline with Washburn committed to having classes begin on January 1, 2019. Under the contract the substantial completion is by the end of November, 2018 already, leaving us less than a 30 day window. And if we delay it another two weeks we are losing that window of opportunity.

Commissioner Archer asked shouldn't we move cautiously?

Commissioner Cook stated maybe the question should be, what is the risk? First what is the risk to JEDO by having it done this way?

Mr. Crowl asked a legal risk? He doesn't think there is any additional legal risk to JEDO. We did confirm with KDOR, we explained to them that ownership of the real estate would continue in the name of JEDO and we wanted to make sure they understood that so if we did go down this road, that we then wouldn't get an opinion reversing once again, the course that we were on. So he doesn't see any risk to JEDO. He sees the risk to Shawnee County if there are disputes and litigation we would want to make sure that Shawnee County is going to be reimbursed for any costs associated with this project.

Commissioner Cook asked that would be item on the motion that JEDO would reimburse Shawnee County for any and all funds expended in the project. And then Shawnee County would then be protected.

Mr. Crowl stated that would be in the motion, and he thinks that would cover it.

Councilman Lesser stated he is trying to wade through this and questions are coming to him. In the process of the way this goes then, would the performance and payments bonds continue to be in JEDO's name?

Mr. Crowl replied he thinks we would need to change those over to Shawnee County to make them consistent with the contract, otherwise if there became issues that would trigger liabilities under those bonds, you could see the bond company saying sorry Shawnee County you don't have the right to complain about this because you are not on the bond. So that would be something that would have to be changed.

Councilman Lesser stated he gets that and he doesn't disagree but the point though along those same lines. If JEDO does continue to be the title holder of the property and in essence he doesn't know if Shawnee County has an insurable interest in the project other than the monies going through them.

Mr. Crowl responded that will be something we will have to sort through with the bond companies. It may be a recommendation that JEDO and Shawnee County both be on the bonds. He thinks the issue would be, go to the bond company and ask what it is going to take to make sure that the project is properly covered.

Councilman Lesser asked if we had actually received the payment and performance bonds for the project or are we still waiting.

Mr. Crowl responded that we do have those bonds.

Mayor De La Isla asked she knows there is concerns with regards to liabilities and challenges with the contract and she is wondering if it would be a safeguard for transparency purposes, that if we make this change and we approve this that it would be added and should there be any disputes in the contract or anything brought up outside of the regular expenses outlined in the contract that it would be brought back to JEDO for discussion.

Mr. Crowl stated he definitely thinks it should be added that certainly any disputes and any additional monies, should be JEDO's final responsibility.

Commissioner Archer stated he thinks what Mayor De La Isla is saying is what if the body disagreed with monies that were requested. What if overages, liabilities, some other claim on the project came back to JEDO, then we would have to review those. It wouldn't automatically be covered. Is that what she is saying?

Mayor De La Isla replied her sentiment is that if there were to be a dispute with regards to, we've established a contract, Commissioner Archer has raised his concerns that they have had dealings in the past with Champions that have not been as smooth, that she wanted to make sure that the public at large was aware that there was an issue and that this body as a whole would work together to negotiate then with that contractor to give Shawnee County some support in that regard.

Commissioner Archer stated that Shawnee County hasn't been involved in selecting the contractor or any of the process at all, is that right?

Mr. Crowl stated only our involvement through JEDO. JEDO authorized HTK, the project architect, to select the bids on the project. It didn't go through the normal process we would go through at Shawnee County.

Commissioner Archer stated so we are being asked to approve a contract between Shawnee County and Champion Builders and would Mr. Crowl give them a little bit of the history of what has occurred in the past.

Mr. Crowl stated he cannot give them the exact years. He thinks the contract started in 2004 or in that area. Shawnee County constructed the North Aquatic Center. Champion Builders was the general contractor on that project, a company named WatersEdge was the architect/engineer. Approximately a month of two into the project, they had a significant rain event that caused silt to get underneath the floor of the main pool structure. The architect/engineer at that point said time out we have got to stop and pull up the section, test it, make sure the subsurface is still in contract specifications because if you get a significant amount of clay or other materials in there you are at risk of the bottom of the pool buckling during freeze/thaw events in the future. So that was what the whole focus was. This pool was designed to have a 30 year life and our engineers were telling us if you don't do this then you run the risk that it is not going to survive that period of time. Of course, Champion felt that the problem or the reason for why this occurred was because the structures that was to be in place to protect the site from inundation were also designed by WatersEdge and they claimed those designs were inadequate and that WatersEdge in essence was at fault for this inundation. So we had a dispute, one over how far to go with pulling out sections of the pool and redoing the subsurface, and then ultimately who is going to be responsible for the costs of that.

Councilman Lesser called a Point of Order. He stated he doesn't know if it is appropriate right now, the contractor is not here. He thinks it is fair enough to say that there has been problems or issues but to dissect the specifics of it, he doesn't know if that is appropriate to do without somebody here to defend their position on it.

Commissioner Cook asked Mr. Crowl for some guidance as the JEDO's Parliamentarian.

Mr. Crowl stated he doesn't know if there is some requirement that the party be here. He thinks the JEDO Chair can rule on that.

Commissioner Archer stated this is all public record.

Mr. Crowl stated he is simply trying to state there was a dispute. Champion made claims against the engineer/architect. Engineer/architect pointed the finger at Champion. There was litigation. At the end of the day, the pool was constructed. We haven't had any issues with the pool to date and it was over a year past schedule by the time those issues were corrected. And that is the balance of basically how that project went.

Commissioner Cook stated in preparation for today's meeting there were some conversations that the Board had with Dean Ferrell. He has been the oversight working with the selection. Did Mr. Ferrell give Mr. Crowl any insight on the selection of Champion as the project contractor?

Mr. Crowl stated this isn't necessarily about Champion but what Mr. Ferrell told him is that he believes this is a very straightforward project and he thought that the subcontractors were reputable, good contractors and they would be the ones doing a lot of the work on the project.

Councilwoman Clear asked Mr. Crowl how did the litigation come out?

Mr. Crowl replied that the litigation came out to where the County released its claim for liquidated damages against Champion. He thinks WatersEdge paid an amount of money to Champion and he thinks some subcontractors might have been paid money from Champion. In litigation with construction, there are multiple parties. He knows the County came out, the way we resolved it was we felt like we required the project to be constructed as designed and our compromise in the situation was to release the liquidated damages for having the project done as scheduled.

Councilman Clear stated she is concerned that we hold that against somebody. Another question she had was, so we would have a contract between the contractor and Shawnee County, and then a contract between JEDO and Shawnee County?

Mr. Crowl responded we would need an agreement from JEDO that Shawnee County is going to be reimbursed for any and all issues related to the project.

Councilwoman Clear asked what could be an issue?

Mr. Crowl responded first and principally that Shawnee County is going to be reimbursed for any payments Shawnee County makes to the contractor in the construction of the project. Worst case scenario if there are problems and there is litigation, then those issues would have occurred with JEDO. All Shawnee County would be asking for is those costs not be borne by Shawnee County because Shawnee County was willing to step in and save the sales tax exemption on the project. So there is any number of issues that could come up. He thinks if we rely on someone like Dean Ferrell who is very experienced, this is a pretty straightforward project. It is not an aquatic center.

Commissioner Cook stated in its simplest form, while there may be risks by having an additional party to the contract, that being Shawnee County, ultimately Shawnee County is acting as a pass-through or a conduit in order to obtain the tax certificate.

Mr. Crowl responded that is the goal. But Shawnee County would be the entity that is the sole entity dealing with it. That is the requirement by the State. He doesn't want to water that down too much and get us in trouble on the exemption.

Councilman Lesser stated he would echo Mr. Crowl's comments too. He also spoke to Dean Ferrell and he told him the exact same thing. This is a straightforward project and he really felt comfortable that he would be able to manage the project and keep it within the specs and the costs. His concern is just making sure that the documents, you have to have an insurable interest, so that needs to be in place. His biggest concern is the payment bond and the performance bond and making sure those are adequately in the right parties' names so in the case that the job does not get finished on time that we are able to make a bond claim.

Mr. Crowl stated that is an open issue at this point.

Commissioner Cook asked if that would need to be added to the motion for tonight's consideration?

Mr. Crowl replied he thinks it would be a good idea to add that.

Commissioner Cook asked that specifically that Shawnee County be secured in bonds?

Mr. Crowl responded that Shawnee County's participation in this project through the contract would be contingent upon Shawnee County being able to obtain the appropriate bonding for the project. Whether that be solely in Shawnee County's name or with Shawnee County and JEDO so that the project is protected, and Shawnee County is protected, and the public is protected. I mean we talk about Shawnee County or JEDO but we are talking about public money, that is the bottom line. We don't want to save $291,000 and then cost ourselves $3 million.

Commissioner Cook requested Zack Snethen with HTK Architects could briefly tell the Board the process of selecting the contractor.

Zach Snethen, AIA, LEED AP, HTK Architects, PA stated he will say a couple things about the contract and how it may protect whoever the owner is listed by the contractor required to have the payment bond, performance bond, statutory bond, insurance in the name of the owner, that is in the contract and so whatever the name of the owner is on the contract, Champion will provide the appropriate bonds for that owner. From an insurance standpoint for the property he believes that would lie with the property owner, that is his understanding.

Mr. Crowl stated he would agree with that. He is speaking causality events.

Commissioner Cook stated part of the agenda packet includes the contract with Champion Builders and the outline is several pages long. Did anyone have any questions about the contract itself, the outline, the budget?

Commissioner Buhler stated she would like Mr. Snethen to talk about the selection process.

Mr. Snethen stated the project was sent out for public bid. February 9, 2018 is when it closed he believes and they had nine bidders from Wichita to Topeka and Kansas City, and up into Lincoln, Nebraska who bid. The low bidder as recorded as actually Lloyd Builders out of Ottawa and they had made a mistake in their bid and per statute they are able to retract their bid if they can show a justifiable mistake, so they retracted their bid within the timeframe to do so, making Champion Builders the next lowest bidder. Within the documents that were submitted we did ask for a contractor's qualification statement that listed their past performance, their bonding capabilities, references, he did call a couple of their references. He didn't find anything that said they would be unqualified to do this project.

Commissioner Archer asked if decision made by KDOR can be appealed?

Mr. Crowl responded yes it can be. But that could take several weeks to get a decision from KDOR on that. And one of the open questions he still has is obviously when you do a property tax appeal you get a refund, and the question we have still is if we appeal and we win, do we get a refund for whatever we expend before that point in time. He is not sure that the appeal would give us a refund, we are still looking into that. But we do have an opportunity to appeal. The process would be, we would submit the application through JEDO and then once that is denied we would appeal but he would anticipate that would take, especially at this time of year, it would take quite a long time. But it could be worthwhile to do so for future issues involving JEDO, he's not saying that's not a worthwhile undertaking because we actually do disagree with that determination.

Commissioner Archer stated this is a radical change from what we have already operated under in the past, is that correct?

Mr. Crowl replied this is the first time JEDO has done a construction project, but when you just read the statutes and you look at what JEDO is, it is an interlocal agency that is a subdivision of the City and the County. He doesn't want to throw too much mud at KDOR because we are still waiting the decision on this, but he looks at it like we are a body that is derivative of the City who is exempt and the County who is exempt, we are building a facility for an educational institution which is exempt, everywhere you turn on this project it is exempt, that is why we were surprised and why we are sitting here tonight trying to figure out how to sort through this.

Commissioner Cook asked but by having the contract assigned to Shawnee County that would be a work around for that problem.

Mr. Crowl responded we had a very specific discussion with KDOR on that, explained that JEDO would still be the owner of the property, explained the process we would go through, the funds would be used and was told that would be exempt from sales tax under that scenario. Either the City or the County.

Commissioner Buhler asked Better Greiner how this would work then, often times we have project budgets and then it is set aside separately.

Betty Greiner, Shawnee County Director of Administrative Services stated we would basically act as a pass-through, we would set up an agency fund that would pay this money out and then we would get reimbursed so on the County's end it would be an in and out. It would not affect the County's financials it would be an agency fund in our financial statements and our accounting system. One of her first concerns is that we would have an agreement that we would be reimbursed in a very timely fashion.

Councilman Emerson stated his company has done probably 75 projects with Shawnee County over the last 30 years and they do an excellent job of administering projects and very fair. He appreciates Mr. Crowl looking into this because they could've approved the contract tonight and then found out in a month when we were trying to get an exemption certificate that we couldn't and that would've been huge. He really appreciates the diligence of the County. His question is we are also looking at considering these New Markets Tax Credits (NMTC), will this in any way interfere with that?

Mr. Crowl responded that he sent an email to the NMTC consultant, Mr. Jeff White asking that precise question because that is another issue. Are we going to save $291,000 and cost ourselves $1.1 million in the process and his answer was no, not at this time. There will be through structuring the NMTC entities that will have to be structured along with that program, there may be some changes that may need to be made with a number of contracts. But at this time no there is no risk to that program based upon the County being the sole contractor on this contract.

Commissioner Cook moved to amend the proposed contract with Champions Builders, to change the Board of County Commissioners of Shawnee County, Kansas as an owner on the contract and remove JEDO. JEDO shall reimburse Shawnee County timely for all funds expended on the project. Any disputes regarding the project shall come back to JEDO and Shawnee County's participation in the contract is contingent upon Shawnee County being able to have adequate bonding from the contractor. Mayor De La Isla seconded.

Commissioner Archer stated he is not able to support the motion, for him and his fiduciary duty to Shawnee County, there are just too many unanswered questions and what ifs, so he will be voting no.

Councilman Lesser asked if we pass this item tonight, tomorrow who picks up the phone and calls Champion and asks them to change the bonding. Who is going to be responsible for that?

Mr. Crowl stated he has already spoken to Greg Murray with Champion and asked him about the change and explained why and whether he had any issues working with Shawnee County on this and he said no. Mr. Snethen he believes has also had a conversation with him about the bonding issues and the fact that we are going to need to work on those. The lingering question with that would be will there be any additional fees to Champion for getting bonds reissued and he thinks that would be an appropriate change order for Champion if they had to pay additional money to get the bonds reissued.

Councilman Lesser asked when we do instruct them, how are we going to instruct them as to the names on the bonds?

Mr. Crowl responded that is still a work in progress. We need to talk to the issuer of the bonds and explained what we are attempting to do and why and make sure everyone is protected.

Following a roll call vote, motion carried 5-1, with Commissioner Archer dissenting.

Commissioner Cook asked before we move on, is there anything additional with this item that we need to consider.

Mr. Crowl responded that the memorandum he circulated including an additional recommendation for JEDO to consider.

Commissioner Cook moved to direct GO Topeka to hire Dean Ferrell Consulting, LLC to provide services to GO Topeka on the ETLC project with an anticipated budget for fees in the approximate amount of $15,000.00.

Mr. Crowl stated as they know Dean Ferrell has already been involved in this project and technically he is under contract with Washburn University to be a consultant. We felt it would be best for everyone's interests' to be protected and Washburn Tech's interest as Lessor and JEDO's interest as owner are the same so our recommendation would be to have Dean Ferrell also act as consultant to the owner on the project and split those fees with Washburn.

Councilman Lesser seconded the motion.

Commissioner Archer asked if Mr. Crowl could explain this again, this is the first time he has seen this. He hates doing business last minute where we are supposed to sit as a body and make decisions where we have had absolutely no pre-work.

Mr. Crowl responded that he was asked to determine the nature of Mr. Ferrell's involvement on the project, he has been speaking with him about it. His involvement to date has been as a consultant on behalf of Washburn University. Now that we are going to have a construction contract the feeling was that it would be a good idea to put him under contract on behalf of the owner as well to provide consultation on the project, principally if there would be any recommended change orders on the project and to oversee and ensure the quality and timeliness of the work.

Commissioner Archer asked why wouldn't the contract with Mr. Ferrell be with Shawnee County?

Mr. Crowl stated under the contract, GO Topeka is still operating as the owner's representative on the project and so Mr. Ferrell would be available to work with and consult with GO Topeka and that is why the motion is for GO Topeka to hire Dean Ferrell as consultant directly for GO Topeka on the project.

Commissioner Archer stated he is just confused, it wouldn't be a contract with Shawnee County since now it is our project.

Mr. Crowl replied we could do it either way. We could do it that way and Shawnee County could seek reimbursement then back for the costs of that project.

Commissioner Cook moved to amend the motion as follows: "Motion to direct GO Topeka to hire Dean Ferrell Consulting, LLC to provide services to Shawnee County on the ETLC project with an anticipated budget for fees in the approximate amount of $15,000.00."

Commissioner Archer stated that would be better and he thinks the idea to get Mr. Ferrell involved is outstanding, he was just confused on the language and who would be reporting to who.

Councilman Lesser seconded the amendment to the motion. Following a roll call vote, motion carried unanimously (6-0).

ITEM NO. 4: ACTION ITEM: Action to proceed and close on the new markets financing transaction to secure net funding of $1 million for the East Topeka Learning Center Renovation and Addition Project.

Barbara Stapleton, Director of Workforce and Education for GO Topeka and Jeff White, Principal, Columbia Capital Municipal Advisors (appearing via telephone) presented the item to the Board.

Mr. White stated it is a good news story today as his memorandum indicated. Our project was successful in securing New Markets Tax Credits (NMTC) allocation to allow us to fill the project gap. He would expect that the value of the credits to be, at the end of the closing and the seven year compliance period, to be north of $1 million. For a quick background the NMTC program has been around for more than 15 years, it has joint bipartisan support by Congress over that period of time. The purpose of the program is to encourage private investment in what the statute indicates as low-income communities. Low-income communities are defined census tract by census tract and is general high poverty, low family incomes or a combination. The process to secure NMTC is relatively complex and is certainly not assured. We were lucky to find a partner who had an allocation of tax credits that they were willing to make available to us for this project which is Raza Development Fund (RDF) out of Phoenix. They are very excited to be our partner in this project and have an excellent reputation in this industry and he thinks they will be a good partner with us.

> As the item before them indicates what we are seeking today is their general blessing to move ahead with the financing. Not asking to them to approve final documents, not asking to even formally commit to undertaking this transaction, because all of that will have to be documented over the course of the next couple of months. What we are asking today is for them to say that generally speaking they are in favor of proceeding with a new markets financing in order to make this $1 million outside contribution a reality and authorize them to proceed and start putting the pieces together to bring the transaction to reality.

Mayor De La Isla made a motion to proceed and close on the new markets financing transaction to secure net funding of $1 million for the ETLC Renovation and Addition Project. Councilman Padilla seconded.

Following a roll call vote, motion carried unanimously (6-0).

ITEM NO. 6: General Public Comment

The following individuals appeared to speak for general public comment:

1. Carol Marple stated she is very excited about the ETLC. She thinks it is going to be a great plus for us. She also wants to let them know that 49th Street is under construction and she is sure that everybody around it is excited. She wants to take advantage of the fact that they are having this extra meeting to address something that she had said at the last JEDO meeting. She thinks her comments were misunderstood. At the last meeting she stated that she thinks it is time now to remind everybody that we have several smaller communities within our county and that we all pay the half-cent sales tax that funds economic development. These communities deserve services, and they are on a much smaller scale. Is it not time for some programs, classes, satellite offices to be offered to them. 712 Innovations is a small business incubator and our smaller towns are usually made up of small businesses. Her comment was we need to have things closer to the people who live in the rural areas of the county. She will use herself as an example. She lives on Wanamaker Road, it is a 32 mile road trip if she were to go to 712 Innovations for a program. But if that same program or similar program was offered in Auburn, it would be an 8 ½ mile round trip. We also have a lot of outstanding venues in the county where social events could be held and one that comes to mind is Glacier's Edge Winery. We also have areas within the County where individuals are socially and economically disadvantaged. One that comes to mind is some areas of Montara. She stated she would be interested in knowing who are the small businesses that have received incentives and she would like to thank Glenda Washington with GO Topeka for providing her with this information. To her surprise she hadn't realized when it was presented that 44 businesses had received incentives, that we were talking clear back to 2016 to the present, she thought it was 2017 to the present. She took the list that Ms. Washington gave her and would like to share it with all of them. She did the research and of the 45 listed since 2016, only one had an address outside of Topeka and that was Silver Lake. One was also listed twice. She really thinks that the public and JEDO members would like to know about these businesses or how unsuccessful these businesses are. While she was doing her research she found that it was clearly stated that only 1 business had closed out of the 44. She thinks that is amazing, it shows a very positive outcome, she thinks that needs to be stated. She looked at the list and she does business with some of them, she had no clue, she will try to do business with more of them.

   Councilman Padilla moved to extend Ms. Marple's time by two minutes. Mayor De La Isla seconded. Following a vote, motion passed unanimously (6-0).

   Ms. Marple stated this is a great list but she thinks it would benefit everybody if we could see a short description of these companies, did they meet their requirements for their incentives, and she believes this should apply to just about every area in GO Topeka because we all need to see how are sales tax money is being spent. We are talking $5 million a year. We know there is going to be good and there is going to be failures. Nothing is 100% all the time. A lot of our smaller towns have community centers or libraries where events could be held and she thinks this could be considered.

NO FURTHER BUSINESS appearing the meeting was adjourned at 7:26 p.m.

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 4

JEDO Board Meeting
May 9, 2018

ACTION ITEM: Approval of Funding for Project Marble.

MEMORANDUM

To: JEDO

From: Molly Howey, SVP Economic Development

Date: 5.2.2018

RE: Project Marble Incentive Request

GO Topeka staff has been working with an existing Shawnee County trucking company (Project Marble) that is growing and looking at expanding its operations.

The GO Topeka Executive Committee approved an incentive for the expansion of Project Marble on 4.27.2018.

Below is a summary of the planned expansion project and requested incentive package:

Project Marble Expansion Project Summary

Industry Type: Commercial Transportation
Average Wage: $40,000 annually
Number of Jobs: 16 retained, 20 new over 5 years

Incentive Proposal

In the expansion of Project Marble in Shawnee County, Kansas with an expected addition of 20 new full-time jobs with an average salary of $40,000 plus benefits, GO Topeka proposes $4,000 per new job to be paid out in equal installments (1/5 of each qualified job incentive = $800 per year) annually over five years. This is a performance-based incentive and details of the agreement will be outlined at a later time via a formal contract with the company.

Below is a breakdown of the proposed incentives:

$4,000 per new job X 20 new jobs = $80,000

TOTAL PROPOSED INCENTIVE: $80,000

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 5

JEDO Board Meeting
May 9, 2018

ACTION ITEM: Approval of GO Topeka 2017 Financial Statements and Auditor's Report.

MHM

990 SW Fairlawn ■ Topeka, KS 66606
Main: 785.272.3176 ■ Fax: 785.272.2903 ■ www.mhmcpa.com

April 26, 2018

To the Board of Directors
Growth Organization of Topeka/Shawnee County, Inc.

We have audited the financial statements of Growth Organization of Topeka/Shawnee County, Inc. for the year ended December 31, 2017 and have issued our report thereon dated April 26, 2018. Professional standards require that we provide you with information about our responsibilities under auditing standards generally accepted in the United States of America, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our engagement letter to you dated March 8, 2018. Professional standards also require that we communicate to you the following information related to our audit.

SIGNIFICANT FINDINGS FROM THE AUDIT

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Growth Organization of Topeka/Shawnee County, Inc. are described in Note 2 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during 2017. We noted no transactions entered into by the Company during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

> Management's estimate of the functional allocation of expenses is based on information, judgment and experience. We evaluated the key factors and assumptions used to develop the estimates in determining that it is reasonable in relation to the financial statements taken as a whole.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to the financial statements taken as a whole.

Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated April 26, 2018.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Organization's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Company's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

This information is intended solely for the use of Growth Organization of Topeka/Shawnee County, Inc. and is not intended to be and should not be used by anyone other than these specified parties.

Very truly yours,

Mayer Hoffman McCann P.C.

Mayer Hoffman McCann P.C.

GROWTH ORGANIZATION OF TOPEKA/SHAWNEE COUNTY, INC.

FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2017 AND 2016

990 SW Fairlawn ▪ Topeka, KS 66606
Main: 785.272.3176 ▪ Fax: 785.272.2903 ▪ www.mhmcpa.com

INDEPENDENT AUDITORS' REPORT

To the Board of Directors
Growth Organization of Topeka/Shawnee County, Inc.
Topeka, Kansas

Report on the Financial Statements

We have audited the accompanying statements of financial position of Growth Organization of Topeka/Shawnee County, Inc., as of December 31, 2017 and 2016, and the related statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Growth Organization of Topeka/Shawnee County, Inc. as of December 31, 2017 and 2016, and the changes in net assets and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Mayer Hoffman McCann P.C.

Mayer Hoffman McCann P.C.
Topeka, Kansas
April 26, 2018

GROWTH ORGANIZATION OF TOPEKA/SHAWNEE COUNTY, INC.
STATEMENTS OF FINANCIAL POSITION

	December 31, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 13,043,023	$ 10,534,966
Investments	5,915,873	5,886,539
Pledges receivable, less allowance for uncollectible pledges of $15,000 in 2017 and $50,000 in 2016	12,600	613,411
Grants receivable	6,602	-
Prepaid expenses	33,996	38,189
Restricted funds	2,113,181	2,378,250
Total current assets	21,125,275	19,451,355
Property and equipment, net	1,492	2,222
Other assets:		
Land held for economic development	7,307,656	7,542,208
Total other assets	7,307,656	7,542,208
Total assets	$ 28,434,423	$ 26,995,785
LIABILITIES AND NET ASSETS		
Current liabilities:		
Deferred grant revenue - JEDO	$ 17,004,732	$ 14,477,956
Accounts payable	65,609	13,887
Due to Greater Topeka Chamber of Commerce	6,518	2,445
Due to Greater Topeka Chamber of Commerce Foundation	9,500	9,500
Due to Greater Topeka Partnership	14,640	-
Accrued expenses	28,734	42,090
Agency funds	250,738	327,681
Improvement and training incentives	2,017,181	1,478,250
Total current liabilities	19,397,652	16,351,809
Other liabilities:		
KFCP Improvement and Fire Station Fund	203,158	203,158
Total liabilities	19,600,810	16,554,967
Net assets:		
Unrestricted		
Undesignated	1,417,357	1,385,200
Board designated	7,403,656	8,442,207
Total unrestricted	8,821,013	9,827,407
Temporarily restricted	12,600	613,411
Total net assets	8,833,613	10,440,818
Total liabilities and net assets	$ 28,434,423	$ 26,995,785

See Notes to the Financial Statements

GROWTH ORGANIZATION OF TOPEKA/SHAWNEE COUNTY, INC.
STATEMENTS OF ACTIVITIES

	Years ended December 31,					
	2017			2016		
	Unrestricted	Temporarily Restricted	Total	Unrestricted	Temporarily Restricted	Total
Support and revenues:						
JEDO grant revenue	$ 2,473,224	$ -	$ 2,473,224	$ 1,604,612	$ -	$ 1,604,612
Private contributions and pledges	(40,086)	21,460	(18,626)	139,388	37,142	176,530
Other grant revenue	27,442	-	27,442	-	-	-
Events and other	50,331	-	50,331	41,107	-	41,107
Interest and investment income	30,511	-	30,511	14,075	-	14,075
Net assets released from restrictions	622,271	(622,271)	-	671,241	(671,241)	-
Total support and revenues:	3,163,693	(600,811)	2,562,882	2,470,423	(634,099)	1,836,324
Expenses:						
Program expenses:						
Economic development	3,817,458	-	3,817,458	2,665,287	-	2,665,287
Total program expenses	3,817,458	-	3,817,458	2,665,287	-	2,665,287
Supporting services expense:						
General and administrative expenses	96,744	-	96,744	384,744	-	384,744
Fundraising	255,885	-	255,885	19,417	-	19,417
Total supporting expense	352,629	-	352,629	404,161	-	404,161
Total expenses	4,170,087	-	4,170,087	3,069,448	-	3,069,448
Change in net assets	(1,006,394)	(600,811)	(1,607,205)	(599,025)	(634,099)	(1,233,124)
Net assets, beginning of year	9,827,407	613,411	10,440,818	10,426,432	1,247,510	11,673,942
Net assets, end of year	$ 8,821,013	$ 12,600	$ 8,833,613	$ 9,827,407	$ 613,411	$ 10,440,818

See Notes to the Financial Statements

GROWTH ORGANIZATION OF TOPEKA/SHAWNEE COUNTY, INC.
STATEMENTS OF CASH FLOWS

	Years ended December 31, 2017	2016
Cash flows from operating activities:		
Contributions, grants and other support	$ 5,653,356	$ 5,852,621
Cash paid to employees and suppliers	(3,406,712)	(1,989,049)
Cash incentives refunded (paid)	25,684	(173,400)
Interest received	30,511	14,750
Net cash flows from operating activities	2,302,839	3,704,922
Cash flows from investing activities:		
Net purchases of short term investments	(29,334)	(2,353,777)
Reimbursement for improvements	234,552	102,986
Net cash flows from investing activities	205,218	(2,250,791)
Net increase in cash and cash equivalents	2,508,057	1,454,131
Cash and cash equivalents at beginning of year	10,534,966	9,080,835
Cash and cash equivalents at end of year	$ 13,043,023	$ 10,534,966
Reconciliation of change in net assets to net cash flows from operating activities		
Cash flows from operating activities:		
(Decrease) increase in net assets	$ (1,607,205)	$ (1,233,124)
Adjustments to reconcile change in net assets to net cash flows from operating activities		
Discount on pledges	-	(20,466)
Depreciation	730	2,627
Decrease (increase) in operating assets		
Pledges receivable	600,811	654,565
Grants receivable	(6,602)	-
Due from Greater Topeka Chamber of Commerce	-	1,560
Prepaid expenses	4,193	(1,629)
Restricted funds	265,069	379,454
Increase (decrease) in operating liabilities		
Deferred JEDO grant revenue	2,526,776	3,395,388
Accounts payable	51,722	(12,085)
Due to Greater Topeka Chamber of Commerce	4,073	2,445
Due to Greater Topeka Chamber of Commerce Foundation	-	1,500
Due to Greater Topeka Partnership	14,640	-
Accrued expenses	(13,356)	42,090
Agency funds	(76,943)	170,893
Improvement and training incentives payable	538,931	118,546
KFCP Improvement and Fire Station Fund	-	203,158
Total adjustments	3,910,044	4,938,046
Net cash flows from operating activities	$ 2,302,839	$ 3,704,922

See Notes to the Financial Statements

GROWTH ORGANIZATION OF TOPEKA/SHAWNEE COUNTY, INC.
NOTES TO THE FINANCIAL STATEMENTS

(1) History and organization

The Growth Organization of Topeka/Shawnee County, Inc. was organized to encourage business and industry to locate and develop within the greater Topeka area and to otherwise promote the common economic interest of greater Topeka. The Organization receives funding through a grant from the Joint Economic Development Organization (JEDO) and by donations from the business community.

(2) Summary of significant accounting policies

Basis of reporting - Assets, liabilities, net assets, revenues, and expenses are recognized on the accrual basis of accounting. Grant revenue is recognized at the time the funds are expended or are accrued for expenditure. Revenue from private contributions is recognized at the time the funds are received. Revenue from pledges is recognized in the period the pledge commitment is made by the donor.

The Organization reports information regarding its financial position and activities according to three classes of net assets: unrestricted net assets, temporarily restricted net assets, and permanently restricted net assets.

Unrestricted net assets represent the portion of funds currently available to support of the Organization's operations. The Organization's Board of Directors may designate a portion of unrestricted net assets to be used for certain purposes. At December 31, 2017 and 2016, the Board has designated net assets for future incentives related to land held for economic development and certain amounts funded to restricted escrow accounts.

Temporarily restricted and permanently restricted net assets represent funds that are subject to donor imposed time or purpose restrictions. At December 31, 2017 and 2016, temporarily restricted net assets are recorded for outstanding pledges receivable due to an implied time restrictions as amounts are to be collected in future periods.

Fair value measurement – Assets recorded at fair value on the statement of financial position are categorized based upon the level of observability associated with the inputs used to measure their fair value. Fair value is defined as the amount that would be received to sell an asset in an orderly transaction between market participants at the measurement date. The availability of unobservable in the market, the determination of fair value requires more judgment.

The three-level hierarchy for fair value measurements is defined as follows:

- Level 1 – Inputs are unadjusted, quoted prices in active markets for identical assets at the measurement date.
- Level 2 – Inputs are other than quoted prices in active markets that are observable for the asset, either directly or indirectly, including inputs in markets that are not considered to be active.
- Level 3 – Inputs are unobservable and significant to the asset, and include situations where there is little, if any, market activity.

Management endeavors to utilize the best available information in measuring fair value.

Investments - The Organization invests in U.S. government securities money market funds, certificates of deposit and U.S. government securities. Investments, other than certificate of deposits, are stated at fair value. Certificate of deposits are carried at costs plus interest credited to date. Realized and unrealized gains and losses, dividends and interest on investments are reflected in the statement of activities.

Investment securities are exposed to various risks, such as interest rate, market fluctuation and credit risk. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in risks in the near term could materially affect investments and the amounts reported in the statements of financial position.

Management use of estimates –The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Pledges receivable - Unconditional promises to give that are expected to be received within one year are recorded at their net realizable value. Unconditional promises to give that are expected to be collected in future years are recorded at the present value of the estimated future cash flows. The discounts on those amounts are determined using risk-free rates applicable to the years in which the promises are received.

Conditional promises to give are not recorded until such time as the conditions are substantially met.

Land held for economic development - The Organization holds land for the development of the Kanza Fire and Central Crossing Commerce Parks in southwest Topeka, Kansas. The acquisition cost of the land and certain types of improvements are recorded as an asset on the Statement of Financial Position. Maintenance and certain utility extension costs that result in benefits beyond the park development are expensed as incurred. Management annually reviews the land held for economic development to determine whether carrying values have been impaired.

Land held for economic development is a board designated net asset.

Property and equipment - The Organization capitalizes all expenditures in excess of $2,000 for property and equipment at cost. Depreciation is determined on the straight-line basis, with estimated useful lives as follows:

Equipment	3 - 5 years
Leasehold improvements	5 - 10 years

Maintenance and repairs which neither materially add to the value of the property nor appreciably prolong its life are charged to expenses as incurred.

Income taxes - The Organization is exempt from federal income tax under Section 501(c)(6) of the Internal Revenue Code, is exempt from federal income taxes pursuant to Section 501(a) of the Code, and has been classified as other than a private foundation.

Expense allocation – The costs of providing various programs and other activities have been summarized on a functional basis. Accordingly, certain costs have been allocated among the programs and services benefited.

Cash defined for statements of cash flows – For purposes of the statement of cash flows, the Organization considers cash held in commercial banks with original maturities of three months or less to be cash and cash equivalents.

(3) Cash and cash equivalents

Cash and cash equivalents include repurchase agreements with a local bank. The repurchase agreements represent ownership interest in Federal Agency securities. Other bank deposits are generally maintained within FDIC-insured limits.

(4) Investments and fair value

Investments consist of the following at December 31,

	2017	2016
U.S. government securities money market fund	$ 3,167,753	$ 2,174,424
Certificates of deposit	2,748,120	3,712,115
Total Investments	$ 5,915,873	$ 5,886,539

The following table summarizes the investments recorded at fair value based on valuation hierarchy as of December 31, 2017:

	Fair Value	Level 1	Level 2	Level 3
Money market fund	$ 3,167,753	$ 3,167,753	$ -	$ -
Total Investments	$ 3,167,753	$ 3,167,753	$ -	$ -

The following table summarizes the investments recorded at fair value based on valuation hierarchy as of December 31, 2016:

	Fair Value	Level 1	Level 2	Level 3
Money market fund	$ 2,174,424	$ 2,174,424	$ -	$ -
Total Investments	$ 2,174,424	$ 2,174,424	$ -	$ -

The fair value of the money market fund is based on the carrying value of the accounts due to its short maturity, high liquidity, and low risk of default.

(5) Property and equipment

Property and equipment consists of the following as of December 31:

	2017	2016
Cost		
Equipment	$ 157,778	$ 157,778
Leasehold improvments	8,503	8,503
Total property and equipment	166,281	166,281
Accumulated deprecation	(164,789)	(164,059)
Net property and equipment	$ 1,492	$ 2,222

(6) Pledges receivable

Pledges receivable from donors consists of the following as of December 31:

	2017	2016
Receivable in less than one year	$ 27,600	$ 663,411
Less allowance for uncollectible pledges	(15,000)	(50,000)
	$ 12,600	$ 613,411

Pledges receivable are classified as Level 3 under the fair value hierarchy since the amount recognized is based on estimated future cash flows.

(7) Land held for economic development

The Organization owns a portion of land at the Kanza Fire and Central Crossing Commerce Parks in southwest Topeka, Kansas. The land is available for the Organization to transfer to companies for economic development.

(8) Restricted funds

Restricted funds represent amounts held in an escrow account for specific purposes. The escrow account is maintained for certain property improvements, training, and employment incentives. The following is a summary of funds held in escrow:

	2017	2016
Balance, January 1	$ 2,378,250	$ 2,757,704
Payments from escrow	(267,308)	(382,074)
Interest and other	2,239	2,620
Balance, Decemeber 31,	$ 2,113,181	$ 2,378,250

(9) Agency funds

The Organization acts as an agent on behalf of the Governor's Military Council. Cash held on behalf of the Governor's Military Council is classified as both cash and a corresponding liability.

(10) KFCP improvement and fire station fund

The Organization has an agreement with Mars requiring an amount equal to 10% of their annual property tax abatement to be paid by Mars to the Organization. The funds are to be used for Kanza Fire Commerce Park improvements and a fire station to serve the park.

(11) Related party transactions

The Organization has entered into a purchased services agreement with The Greater Topeka Chamber of Commerce (the Chamber) for certain services, resources, office space and equipment. Services provided by the Chamber to the Organization include bookkeeping, accounting and audit support, and support services to include communications and marketing, administrative and government relations. In addition, the agreement includes payment to the Chamber for a portion of the President's salary based on an estimate of the time spent serving the Organization. The terms of this agreement will be reviewed annually. During the year ended December 31, 2017 and 2016, the Organization paid $300,000 and $250,000, respectively, which were funded by private dollars, to the Chamber under this agreement.

At December 31, 2017 and 2016, the Organization owed the Greater Topeka Chamber of Commerce $6,518 and $2,445, respectively, for reimbursement of expenses and fees for participation in Chamber events and programs.

The Organization also makes lease payments based on its proportionate share of space under a lease agreement between Security National Properties and the Greater Topeka Chamber of Commerce. Total lease expense for the years ended December 31, 2017 and 2016 was $70,314 and $70,280, respectively.

The Organization owed $9,500 and $9,500 at December 31, 2017 and 2016, respectively, to the Greater Topeka Chamber of Commerce Foundation for pledges collected on their behalf.

The Organization owed $14,640 at December 31, 2017 to the Greater Topeka Partnership for pledges collected on their behalf.

The Organization made a contribution in the amount of $75,000 in both 2017 and 2016 to 712 Innovations, LLC, a subsidiary of the Greater Topeka Chamber of Commerce Foundation. 712 Innovations, LLC was established to provide a makerspace/co-work space for economic development.

The Organization made a contribution in the amount of $60,000 in both 2017 and 2016 to Heartland Visioning, a subsidiary of the Greater Topeka Chamber of Commerce Foundation.

(12) JEDO grant

JEDO is a separate legal entity authorized by Kansas Statute 12-2904(a) which was created by an inter-local agreement between the Board of Commissioners of Shawnee County and the City of Topeka. The Organization has an agreement with JEDO that provides for a grant to the Organization for the purpose of providing economic development services, including research, target marketing, existing business retention and expansion, new business recruitment, minority and women-owned businesses, infrastructure development, site acquisition and development, incentive funds, workforce training and expansion, and other such activities deemed necessary and appropriate. The term of the agreement was for one year with options to extend for successive periods of one year each unless either party terminates the agreement. During 2017, JEDO approved a new grant agreement with the Organization for a three - year period commencing January 1, 2018.

JEDO has approved the carryover of the 2017 and 2016 unexpended grant funds. This carryover is included in the deferred JEDO grant revenue at December 31, 2017 and 2016, and includes approximately $974,000 and $908,000 for the minority and women-owned business program at December 31, 2017 and 2016, respectively.

(13) Concentrations and major customers

The Organization received 97% and 87% of their total revenue from a grant with the Joint Economic Development Organization (JEDO) for the years ended December 31, 2017 and 2016, respectively. In the event this grant was discontinued, the activities of the Organization would be curtailed accordingly.

(14) 401(k) retirement plan

The Organization established a 401(k) retirement plan in which eligibility is reached when an employee has completed ninety days of continuous employment and is over the age 21. The 401(k) retirement plan is sponsored by the Association of Chamber of Commerce Executives.

The Organization's 401(k) retirement plan expense was $24,189 and $17,070 for the years ended December 31, 2017 and 2016, respectively.

(15) Incentives

The Organization enters into various incentive agreements covering several years and generally requiring maintenance of employment levels and other obligations. For the year ended December 31, 2017, the Organization received a net amount of $25,684 for cash incentives paid and amounts recouped from employers that did not maintain employment levels or meet other requirements. For the year ended December 31, 2016, the Organization paid net cash incentives totaling $146,224. At December 31, 2017, the Organization also has outstanding contingent incentive commitments to various companies expected to be payable as follows:

2018	$ 1,834,400
2019	602,400
2020	419,400
2021	419,400
2022	373,800
Therafter	148,400
Total	$ 3,797,800

Improvements and training incentive liability includes the following at December 31:

	2017	2016
Funded and held in escrow (see Note 8)	$ 2,113,181	$ 2,378,250
Less board designated employment incentive held in escrow	(96,000)	(900,000)
Balance, December 31	$ 2,017,181	$ 1,478,250

(16) Subsequent events

The Organization has evaluated subsequent events through April 26, 2018, the date which the financial statements were available to be issued. No subsequent events were noted.

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 6

JEDO Board Meeting
May 9, 2018

Presentation: GO Topeka Quarterly Report.

GO TOPEKA
QUARTERLY REPORT

2018 - 1ST QUARTER

GO TOPEKA
785.234.2644
GOTopeka.com
120 SE 6th Ave.
Topeka, KS 66603

Cover Photo:
A rendering of Washburn Tech East, the result of the East Topeka Learning Center Project, under construction now on 21st and Washington streets. Enrollment begins soon.

TABLE OF CONTENTS

Momentum 2022 focuses on five key elements to make Topeka & Shawnee County a better place to live, work, play and do business.

KEY

- Develop Homegrown Talent
- Create Vibrant & Attractive Places
- Grow a Diverse Economy
- Promote a Positive Image
- Collaborate for a Strong Community

For more information, go to **Momentum2022.com**

COMMON QUESTIONS

What is JEDO?
The Joint Economic Development Organization (JEDO) was established by an interlocal agreement between Shawnee County and the City of Topeka, Kansas, in 2001. The JEDO Board is comprised of 13 members. Voting members include the three Shawnee County Commissioners, City of Topeka Mayor and Deputy Mayor and two Topeka City Council members. Nonvoting members are the remaining six council members. JEDO is funded through the half-cent county wide retail sales tax established by the inter-local agreement and is to be used for economic development.

What is GO Topeka?
GO Topeka is the leader in creating opportunities for economic growth that provide a thriving business climate and fulfilling lifestyle for all residents of Topeka and Shawnee County.

GO Topeka's mission is to create exceptional opportunities for growth, prosperity, innovation, and economic diversity and vibrancy that positively impact current and future citizens of Topeka & Shawnee County by attracting world-class companies, providing existing companies with the knowledge and resources to reach their highest potential, and cultivating entrepreneurial development and growth.

What is Momentum 2022?
Momentum 2022 is a comprehensive, actionable, and consensus-based plan to guide the community's collective actions in the years to come. Strategy development was funded by the Topeka Community Foundation, GO Topeka, Heartland Visioning, Topeka & Shawnee County Public Library, and United Way of Greater Topeka. The Strategy seeks to make Topeka & Shawnee County a better place to live, work, play, and do business. It addresses the full range of factors that influence the community's competitiveness – talent, education and training resources, infrastructure, business climate, quality of life, quality of place, and so on.

What is the purpose of this report?
The quarterly report to JEDO is a contractual requirement and, hopefully, a resource for the members and the community at large regarding economic development activities in Topeka & Shawnee County. Updates on each of GO Topeka's major initiatives are included here

- Business Retention & Expansion
- New business Recruitment
- Workforce & Education
- Forge Young Professionals
- Entrepreneurial & Minority Business Development
- 712 Innovations
- The Topeka Subcenter of Kansas Procurement Technical Assistance Center
- Momentum 2022

How does all of this information about GO Topeka and JEDO relate back to Momentum 2022?
Conceived as a strategic plan for the economic development of Topeka & Shawnee County, Momentum 2022 and the work of JEDO are hand and glove. The strategy takes a broad view of economic development in its inclusion of quality of life, community pride and quality of place. But the majority of its designated action items are from the realm of traditional economic development and every aspect of the plan, if achieved as envisioned, will make the area more competitive and make the work of GO Topeka's many initiatives easer to achieve.

How does all of this relate to the Greater Topeka Partnership?
The Greater Topeka Partnership seeks to enhance Topeka & Shawnee County as a desirable place to live, work, play and do business through community and business partnerships and by promoting the Momentum 2022 strategy.

For more information, go to **JEDOEcoDevo.com**

TOPEKA & SHAWNEE COUNTY VITAL STATS

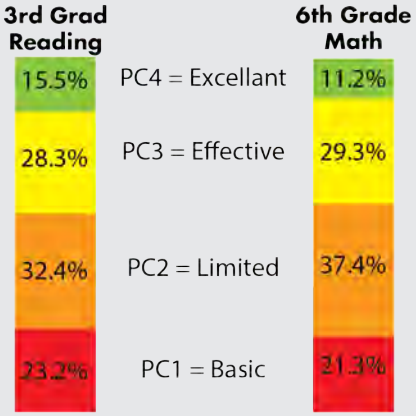
DEVELOP HOMEGROWN TALENT

GRADUATION RATE - FIVE-YEAR ADJUSTED COHORT FORMULA (ALL SCHOOLS 2016-2017)(1)

STATE OF KANSAS **86.9%**

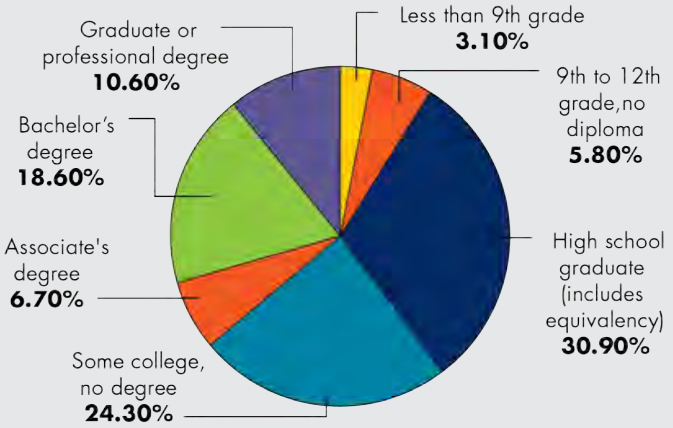
SHAWNEE COUNTY **84.7%**

STUDENT-LEVEL METRICS IN SHAWNEE COUNTY (2017)(1)



EDUCATIONAL ATTAINMENT IN SHAWNEE COUNTY (2016) (2)

(Population 25 years and older)



TECHNICAL DEGREES

1,167 WASHBURN INSTITUTE OF TECHNOLOGY

CREATE VIBRANT & ATTRACTIVE PLACES

AARP LIVABILITY INDEX (3)

This score rates the overall livability of Shawnee County on a scale from 0 to 100. It is based on the average score of seven livability categories—housing, neighborhood, transportation, environment, health, engagement, and opportunity—which also range from 0 to 100.

2022 Target: 58 AARP livability index

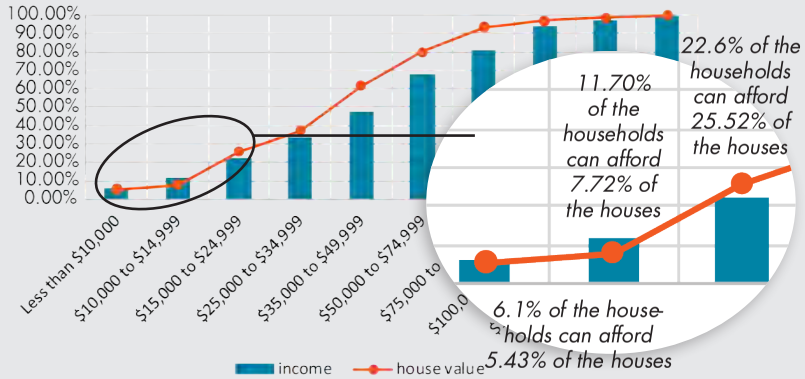
PEDESTRIAN FRIENDLY SHAWNEE COUNTY (2017) (4)

SIDEWALKS IN THE CITY **662 MILES** — *2022 Goal: 684 miles*

BIKEWAYS **61 MILES** — *2022 Goal: 80 miles*

TRAILS (PAVED) **31 MILES** — *2022 Goal: 34 miles*

HOUSING AFFORDABILITY DISTRIBUTION IN SHAWNEE COUNTY (5)



8,309 households or 12% can't afford a $50,000 house

ATTENDANCE AT FESTIVALS AND EVENTS (2017)

572,625 PEOPLE

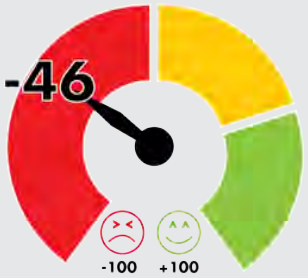
Ticketed event information provided by Kansas Expocentre, Topeka Civic Theatre as well as all Greater Topeka Partnership organizations. Crowd estimated of GTP overrated festivals are calculated using the Jacobs Method.

2022 Target: 664,000 people

PROMOTE A POSITIVE IMAGE

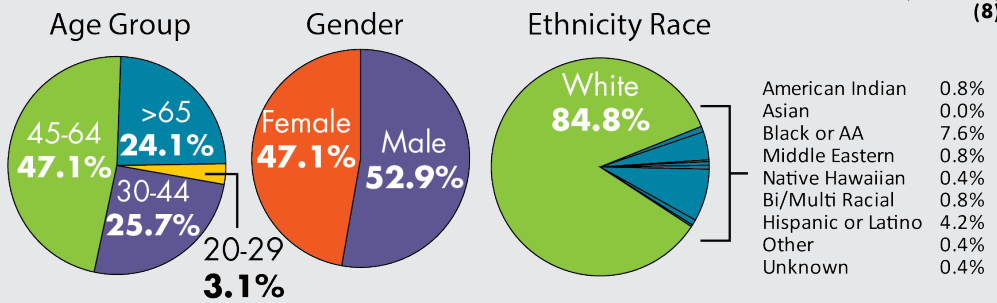
® NET PROMOTER SCORE (NPS) (2018) (8)

An index ranging from -100 to 100 that measures the willingness of customers to recommend a product or experience to others.

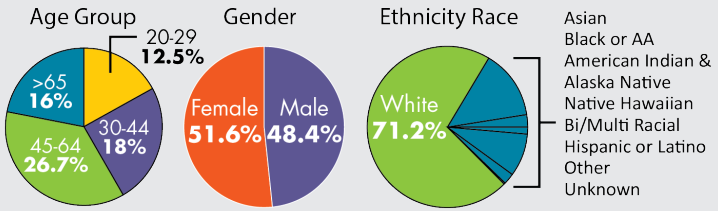


COLLABORATE FOR STRONG COMMUNITY

SURVEY RESULTS ON LOCAL NON-PROFIT BOARD DIVERSITY (2018) (8)



It is intended that non-profit boards are reflective of the community as a whole. To that end, the graphs above should mirror the graphs at right.



PHYSICAL AND MENTAL HEALTH IN SHAWNEE COUNTY (2016) (10)

3.1 POOR PHYSICAL HEALTH DAYS

3.5 POOR MENTAL HEALTH DAYS

Average number of physically/mentally unhealthy days reported in past 30 days (age-adjusted)

INFANT MORTALITY RATE IN SHAWNEE COUNTY (2016) (10)

6.6 WITHIN 1 YEAR PER 1,000 LIVE BIRTHS

GROW A DIVERSE ECONOMY

SHARE OF EMPLOYMENT AT BUSINESSES LESS THAN 5-YEARS OLD (2017) (9)

6,422 PEOPLE WORK AT A NEW BUSINESS

2022 Target: 7,093 people

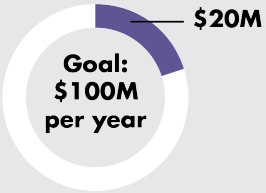
ANNUAL MEDIAN WAGE IN TOPEKA (2016) (7)

$35,420

2022 Target: $39,000

PRIVATE CAPITAL INVESTMENT IN SHAWNEE COUNTY (2018) (8)

Capital investment is captured by GO Topeka after businesses ask for an incentive, which requires a report on their capital investment. Capital investment is the amount of money new or current businesses spend to create, expand or improve facilities. The numbers are self-reported and include more businesses than were incentivized, and excludes the cost of maintenance, as all business are required to spend money to maintain.



2022 Target: $500M

TOTAL PRIVATE JOBS IN SHAWNEE COUNTY (2017) (6)

Private = Non-Government Jobs

75,061

2022 Target: 79,000 jobs

GLOBAL METRICS

GDP IN MILLIONS OF CURRENT DOLLARS (11)

$10,048 MILLION IN 2015

$10,471 MILLION IN 2016

Gross domestic product (GDP) is equal to the sum of personal consumption expenditures, gross private domestic investment, net exports of goods and services, and government consumption expenditures and gross investment.

2022 Target: $11,500 GDP in millions of current dollars

NUMBER OF PEOPLE WORKING, BUT NOT LIVING IN SHAWNEE COUNTY (2015) (9)

37,123 OR **63.8%**

PER CAPITA INCOME IN SHAWNEE COUNTY (2016) (11)

$44,504

2022 Target: $50,000

POVERTY RATE IN SHAWNEE COUNTY (2016) (12)

10.89% TOTAL POVERTY RATE

14.11% CHILD POVERTY RATE

Sources: **1** *Kansas State Department of Education,* **2** *U.S. Census Bureau, ACS 5-Year Estimates,* **3** *AARP Livability Index,* **4** *City of Topeka Planning Department ,* **5** *National Association of Realtors,* **6** *Quarterly Census of Employment and Wages,* **7** *Occupational Employment Statistics,* **8** *GO Topeka,* **9** *U.S. Census Bureau, Longitudinal Employer-Household Dynamics,* **10** *County Health Ranking,* **11** *Bureau of Economic Analysis,* **12** *U.S. Census Bureau, Small Area Income and Poverty Estimates*

PROVIDED BY

Momentum 2022

Kanza Fire Commerce Park is a 1,000-acre business park with flexible acreage for mixed-use land parcels ideal for industrial development.

Grow a Diverse Economy

BUSINESS ATTRACTION & RETENTION

Business Attraction's responsibility is to entice new businesses and organizations to make Topeka & Shawnee County home, encouraging them to invest in the area as a viable place to grow. This is accomplished through a site selection process, which puts Topeka & Shawnee County up against other communities across the world.

Business Retention's role is to ensure existing Topeka & Shawnee County businesses have every opportunity to grow and thrive in the community. This can be done through incentives to grow workforce, build additional facilities or by connecting them with a supplier, for example. Working closely with businesses, Topeka & Shawnee County ensures that the prosperity of the community's private sector continues to rise, growing a more diverse economy.

Our existing businesses are thriving and growing in Shawnee County. Continued growth in relationships both locally and with headquarters prove to be beneficial to our community's future success in retention and expansion of our current corporate citizens.

Project Jingle - a successful pipeline project
Project Jingle is an existing Shawnee County company interested in building a $20 million addition to their facility. The expansion would mean 12 new full-time jobs over two years with an average salary of $45,000.

"We're always excited about new projects for Topeka and Project Jingle is no exception," said Molly Howey, Senior Vice President, Economic Development for the Greater Topeka Partnership. "We're thrilled they chose to stay in Shawnee County, and what it will mean for the local economy."

Business Development & Attraction
New Business Attraction remains a main focus for GO Topeka. Since the beginning of the year, staff has opened three new projects, all in the manufacturing sector. One current trend is most manufacturing companies are looking to build new facilities as opposed to selecting an existing building and are looking to expand current operations versus relocating from another community.

Project Pipeline
GO Topeka, along with city, county and utility partners, hosted a site visit for a manufacturing prospect in March a second visit in mid-April. Currently the Topeka site is one of three finalists for this project from an original list of 59 communities.

Business Development & Attraction

Business Retention & Expansion (BRE)

HELPFUL DEFINITIONS

Business Retention & Expansion (BRE)
Helps to keep businesses in Topeka

Business Development & Attraction
Brings businesses to Topeka

Project Pipeline
All of the projects BRE and Attraction are working on

Project Jingle
a successful pipeline project

Grow a Diverse Economy

GO TOPEKA ACCREDITED BY THE INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL

INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL
AEDO
Accredited Economic Development Organization

FIRST & ONLY **IN KANSAS**

"Accreditation is confirmation that GO Topeka is a leading authority in economic related issues."

-Keith Warta

The Greater Topeka Partnership is proud to announce that GO Topeka has joined an elite group as one of 62 economic development organizations globally to earn Accredited Economic Development Organization (AEDO) status by the International Economic Development Council (IEDC).

"GO Topeka displays the professionalism, commitment, and technical expertise that is deserving of this honor," said IEDC President and CEO Jeff Finkle.

The AEDO program is a comprehensive peer review process that measures economic development organizations against commonly held standards and best practices in the profession. The program consists of two phases: a documentation review and an onsite visit. Each phase is designed to evaluate information about the structure, organization, funding, programs, and staff of the candidate economic development organization.

"Accreditation from the International Economic Development Council is the pinnacle of validation that we are in exclusive company when it comes to economic development organizational expertise. We are proud to lead the way as the first and only accredited economic development organization in the State of Kansas," says Matt Pivarnik, CEO & President of the Greater Topeka Partnership. "I attribute this accreditation to our volunteer leadership, elected leaders, JEDO, professional staff and many community partners."

"This is a measure of the best in the business," says GO Topeka Chair and Bartlett & West CEO Keith Warta, "Accreditation is confirmation that GO Topeka is a leading authority in economic related issues."

Elected leaders Mayor Michelle De La Isla and County Commissioner and Chair of JEDO Kevin Cook gave high praise to GO Topeka in recognition of its accreditation and overall contribution to Topeka & Shawnee County.

"GO Topeka has been a continuous leader in the way of economic growth and development," declared Mayor De La Isla. "This accreditation is well deserved and reflective of the excellent efforts the organization continues to put toward advancing Topeka's quality of life."

Commissioner Cook remarked, "GO Topeka's invaluable contribution to the economy has impacted countless businesses and individuals throughout Shawnee County, and this accreditation only emphasizes GO Topeka's well-established reputation as a chief economic development organization."

Maintenance of the AEDO status is required every three years and is accomplished through documentation submission and/or onsite visits by a team of the AEDO subcommittee.

"We are proud to lead the way as the first and only accredited economic development organization in the State of Kansas."

-Matt Pivarnik

"This accreditation is well-deserved and reflective of the excellent efforts the organization continues to put toward advancing Topeka's quality of life."

-Mayor De La Isla

"GO Topeka's invaluable contribution to the economy has impacted countless businesses and individuals throughout Shawnee County."

-Commissioner Cook

ONE OF 62 **GLOBALLY**

On March 8, both women and men gathered at the Capitol Plaza hotel to hear from speakers and panelists at the spring 2018 Women's Forum and Panel Discussion, "Becoming a Woman of Vision."

Grow a Diverse Economy

Collaborate for a Strong Community

ENTREPRENEURIAL & MINORITY BUSINESS DEVELOPMENT

Entrepreneurial and Minority Business Development ensures small businesses in Topeka & Shawnee County constantly receive support. Incentive programs and educational sessions are provided to help these businesses grow and strengthen. Support can be provided for marketing, equipment, construction and education.

SMALL BUSINESS INCENTIVES

$71,000
Incentives issued

18
Incentives issued

25
Currently in Pipeline

FIRST OPPORTUNITY LOAN FUND

$50,000
One Loan issued

2
Requests in pipeline totaling $190,000

FASTTRAC NEW VENTURE

12
Start ups registered

PTAC
(PROCUREMENT TECHNICAL ASSISTANCE CENTER)

PTAC was created by congress in the 1980s to assist businesses involved in government contracts. Today, Kansas PTAC assists qualified businesses in locating, obtaining and performing federal, state and local government contracts. Kansas PTAC is funded through a partnership that also includes Pittsburg State University, Johnson County Community College, Wichita State University and now GO Topeka.

TOTAL CONTRACT AWARDS FOR KS PTAC SUBCENTER TOPEKA

(Service area covers 26 counties in NE KS)

$75,354 = Federal awards
$ 0 = State & local awards
$ 0 = SubCenter award

$75,354 CONTRACT AWARDS

SHAWNEE COUNTY CONTRACT AWARDS

$38,597 of $75,354
49% of total contract award goes to Shawnee County

SOCIAL-ECONOMIC SPLIT ON CONTRACT AWARDS

$58,794 = Small Disadvantaged Business
$ 8,570 = Woman Owned Small Business
$20,197 = HUBZone
$55,074 = Service Disabled Veteran Owned Small Business

$75,354 CONTRACT AWARDS

The first Entrepreneur Meet Up was held on March 29, at Norseman Brewing Company with catering provided by KB's Smokehouse. Each quarters event will be at another locally owned entrepreneur's establishment. Upcoming events will be June 7, September 6 and December 6.

Grow a Diverse Economy

712 INNOVATIONS

COWORK | MAKERSPACE | INCUBATOR

712 Innovations mission is targeted programs, resources and services that accelerate the successful development of start-up and fledgling founder operated small business entrepreneurs and entrepreneur teams building scalable high-growth businesses. 712 Innovations is the hub of the Topeka & Shawnee County entrepreneur ecosystem and works closely with its ecosystem and corporate partners to connect entrepreneurs with our network to accelerate knowledge, growth and revenue.

HELPFUL DEFINITIONS

Entrepreneurship Ecosystem
The social and economic environment affecting local/ regional entrepreneurs and entrepreneurial businesses. Topeka/Shawnee County currently has 40 business and organizations that are working to finance, support, or provide training and resources to our entrepreneurial community.

1 Million Cups Topeka
Developed by the Kauffman Foundation, 1MC is a free national event designed to educate, engage, and connect entrepreneurs. The Topeka chapter meets 9-10am the 1st Wednesday of every month.

712i Pre-Incubator
A space for supporting nascent entrepreneurs that provides an environment to develop and test a fledgling business idea, often while working with the Washburn Small Business Development Center or Go Topeka's EMBD FastTrac NewVenture 6-week program.

712i Incubator
A 3 month - 2-year program that helps mid-late first stage startup companies to develop by providing educational and technical support in conjunction with dedicated focused mentoring and facilitated networking opportunities.

CoWork
Unlike in a typical office, those coworking are not employed by the same organization. Typically, it is attractive to work-at-home professionals, independent contractors or people who travel frequently who end up working in relative isolation.

MakerSpace
Combined manufacturing equipment and education for the purposes of enabling members to design, prototype and create manufactured works that wouldn't be possible to create with the resources available to individuals working alone.

35
Entrepreneur Meet up attendance

40
Entrepreneurs Presenting at 1 Million Cups

PRE-INCUBATION ENTREPRENEURS

37
Makerspace Entrepreneurs

65
CoWork Space Entrepreneurs

Incubator Entrepreneurs beginning **SUMMER 2018**

FORGE

YOUNG PROFESSIONALS

TOPEKA

Develop Homegrown Talent

The mission of Forge is to attract and retain young talent. The viability of the city's industry is dependent upon the city's ability to recruit, retain and train young talent. But the mission is not simply about the replacement of current workforce, it is about driving the innovation and creativity that moves us forward.

1,734
Members

25
Events/meetings in Qt 1

752
Members attended events

Develop Homegrown Talent

WORKFORCE & EDUCATION

Workforce & Education focuses on convening partners from schools and businesses to talk through their current and upcoming needs. As a result, schools can educate and train students to go from graduation to the workforce and companies and organizations get the satisfaction of hiring a locally-educated workforce.

	CITY OF TOPEKA	SHAWNEE COUNTY	KANSAS
NUMBER OF JOBS	85,757	101,843	1,481,288
AVERAGE ANNUAL WAGE	$44,000	$44,200	$44,500
LABOR FORCE PARTICIPATION RATE	50.48%	51.61%	51.85%
UNEMPLOYMENT RATE	3.8%	3.6%	3.6%
EMPLOYMENT-POPULATION RATIO	48.54%	49.76%	49.98%

Labor Market Statistics, Quarterly Census of Employment and Wages Program
Local Area Unemployment Statistics (LAUS)
Downloaded: 04/02/2018 11:26 AM

1,820 SOTO Trips to date

192 CaRE bus passes used to date, 24 in 1QT 2018

53 Students assisted by JEDO Scholorships

$23,000 In scholarships awarded

Spring semester, 2018

HELPFUL DEFINITIONS

Labor Force Participation Rate
A measure of the active portion of an economy's labor force. It refers to the number of people who are either employed or actively looking for work.

Employment-population ratio
A measure of labor market strength; it is calculated by dividing the number of employed workers in an area by the total civilian non-institutionalized population aged 16 and over in that region.

JEDO Scholorships
JEDO Scholarships are awarded to Washburn Institute of Technology students in high demand fields from programs like practical nursing and advanced systems technology. These scholarships impact students' lives, helping to grow our workforce and support those students to earn a certificate and obtain well paying positions.

SOTO
The SOTO (South Topeka) Ride to Work program is a pilot transportation initiative for South Topeka employers. In March, 748 trips were taken, and trips to date for the pilot are over 1,820, helping impact transportation barriers for employees for more than 7 employers in the South Topeka corridor.

Topeka Rescue Mission's Career Readiness Education program (CaRE)
The Topeka Rescue Mission's Career Readiness Education program provides workforce training for TRM residents. The bus pass program assists TRM in ensuring students in the program have transportation access to internships and employment opportunities in the community.

Develop Homegrown Talent

TopCity Teachers

Top City Teachers aims to connect student teachers to resources in Topeka & Shawnee County to encourage their participation in local young professional initiatives.

TopCity Teachers had a successful first round of introducing county districts' student teachers to quality of place initiatives and providing professional development programming with over 35 student teachers participating throughout the semester. Student teachers heard excellent insight and advice from presenters and panelists in three different interactive sessions that introduced them to the community as well as offering quality of place connection to Topeka and Shawnee County.

Collaborate for a Strong Community

[iNCLUDED]

Backed by GO Topeka and the Greater Topeka Chamber of Commerce, iNCLUDED aims to be the authority on diversity and inclusion within businesses and organizations throughout the region.

iNCLUDED has several initiatives that are developing for the coming year, all to address diversity, equity and inclusion programming and partnerships in the community. Groups are working on reverse mentorship opportunities as well as community welcome groups to support recruitment efforts as needed for employers. As the resource and partner in the community for diversity & inclusion, the first quarterly Community-Wide Resource Group met in March to bring iNCLUDED businesses together with community members to provide training, support and a forum to further build relationships, partnerships and diversity, equity and inclusion support.

Develop Homegrown Talent

EAST TOPEKA LEARNING CENTER PROJECT
(WASHBURN TECH EAST)

Washburn Tech, in partnership with GO Topeka, the Joint Economic Development Organization (JEDO) and the East Topeka community, broke ground for a new adult training center located at 2014 SE Washington St., the site of a former military service facility. Washburn Tech East, scheduled to open in January 2019, will offer courses in health care, construction trades, commercial truck driving and the General Education Diploma (GED).

JEDO purchased the site for $240,000 and is providing up to $4 million for the partial demolition and remodel of the existing facility. In addition, JEDO is committed to provide partnership funds up to $500,000 per year for three years for start-up and operational expenses, having already committed the first year of funding. They have further charged GO Topeka to identify and potentially secure a funding source through New Markets Tax Credits that would offset two-thirds balance of the cost of partnership funds. Washburn University and Washburn Tech will provide staff, instructional programs and all certifications. The new 11,000-square-foot facility will accommodate 400 students annually.

"GO Topeka is dedicated to the competitive future of the Topeka and Shawnee County workforce, striving to grow, retain, and attract talented and educated people," said Matt Pivarnik, president/CEO, Greater Topeka Partnership. "A well-educated workforce is critical to our employers. Washburn Tech East addresses our talent pipeline focus with well-planned insightful educational opportunities."

In the fall of 2017, Washburn, GO Topeka and JEDO engaged Ketchum Global Research & Analytics, Boston, Mass., to conduct a market research study. According to data provided by GO Topeka, there are 11,000 working adults in Shawnee County who do not currently have a GED.
The market study confirmed that there is a need for an educational facility in East Topeka and the courses being offered are those the job market is calling for and ones that prospective students want to take. These courses are designed to give prospective employees the education and training they need to compete and be successful in today's workforce and lay the foundation for future advanced training opportunities.

"GO Topeka is dedicated to the competitive future of the Topeka and Shawnee County workforce, striving to grow, retain, and attract talented and educated people,"

-Matt Pivarnik

"This project offers yet another opportunity to work with our business and industry partners, as we deliver technical training to the East Topeka community," said Clark Coco, dean, Washburn University Institute of Technology. "Today's workforce is going to need some type of post-secondary education to compete in the job market. We are committed to providing the future students who come to Washburn Tech East with the skills and training they need to find employment in these high-demand jobs."

COMMUNITY COLLABORATION SPOTLIGHT

Create Vibrant & Attractive Places

Collaborate for a Strong Community

Momentum 2022 calls for the creation of vibrant & attractive places while collaborating for a strong community. The result will create a better quality of life for the residents of Topeka & Shawnee County while becoming a more attractive option for young professionals interested in moving to the area. Collaboration between the Greater Topeka Partnership, the City of Topeka and community leaders is vital to reaching the goals set forth in Momentum 2022, and programs like "Team Up Clean Up" will ensure each measure is met.

+ WORK GROUPS GOVERNMENT VOLUNTEERS

NEIGHBORHOOD IMPROVEMENTS

The Momentum 2022 Work Groups - Quality of Place and Community Engagement, Pride and Service are joining forces with the City of Topeka in its pilot "Team Up Clean Up" Program, which is spearheaded by Director Mike Haugen. The goal of the program is to bring several city services simultaneously to a small area in order to make a noticeable improvement in the vitality and physical appearance of the neighborhood. A walk-through tour of volunteers from the two work groups, city staff and Neighborhood Improvement Association leaders and residents of the Old Town Historic Neighborhood was held in late March. The purpose of the neighborhood tour was to assess needs and determine the scope of work. The goal is to bring services to the area during the 30 days of the month of May.

"The goal of the program to bring in city government services in a small area and make a noticeable improvement in the vitality and physical appearance of the neighborhood."

The facilitation of this collaborative approach through Heartland Visioning, City of Topeka staff and the volunteers of the Momentum 2022 Work Groups is focused on the implementation of two objectives of the Momentum Strategy: Objectives 5.2.1 and 2.1.6. Those objectives are to create a community-wide volunteer initiative focused on neighborhood improvements and bridging geographic and cultural gaps while working to beautify and revitalize a targeted neighborhood.

Learn more about Momentum 2022 at **Momentum2022.com**.

GREATER TOPEKA PARTNERSHIP STAFF

EXECUTIVE TEAM

Matt Pivarnik
President and CEO

Brett Oetting
EVP
President - Visit Topeka

Curtis Sneden
Chief Operating Officer

Vince Frye
President - DTI

Molly Howey
SVP - Economic Development

Glenda Washington
SVP - EMBD

Kayla Bitler
SVP - Momentum 2022

Mary Ann Anderson
Assistant Manager - EMBD

Andrea Bailey
VP - Administration

Mike Bell
VP - Sales

Hannah Burianek
Accountant

Rosa Cavazos
Director of Events

Megan Caudill
Executive Assistant

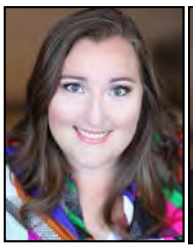
Paul Cervantez
District Maintenance Specialist

Karen Lane Christilles
Executive Director - 712 Innovations

Michelle Cuevas-Stubblefield
Executive Director – LGT

Liz Cornish
Assistant

David Corr
Equipment Technician & Trainer - 712 Innovations



Rosemary Dahlgren
Digital Communications Director

Jes Dawkins
Executive Assistant

Glenda DuBoise
Community Engagement Coordinator

Kristi Dunn
PTAC Subcenter Director

Nevada Fenton-Millis
Graphics Manager

Rhett Flood
Project Manager

Jared Hitchens
Project Manager

Matt Lara
Web Manager

Freddy Mawyin
Research Manager

Amy McCarter
VP - Communications

Jensen Moore
Copywriter

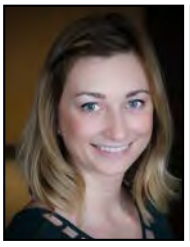
Gabriel O'Shea
Executive Director - Forge

Kelsey Papps
Creative Director

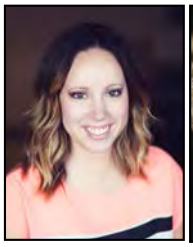
Kim Redeker
VP - Resource Development

Liz Sage
Member Relations Manager

Michaela Saunders
VP - Brand Strategy



Jessica Schenkel
Sales Manager



Ashlee Spring
Corporate Events Manager

Barbara Stapleton
VP - Workforce & Education

Jackie Steele
VP - Business Retention & Expansion

GO TOPEKA BOARD OF DIRECTORS

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Greater Topeka Partnership

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Midwest Health

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GIANFRANCO PEZZINO
Shawnee Co. Health Agency

GREG SCHWERDT
Schwerdt Design Group

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City of Topeka

MICHAEL PADILLA
City Councilman
City of Topeka

SHELLY BUHLER
Commissioner
Shawnee County

DR. JERRY FARLEY
President
Washburn University

ERIC JOHNSON
President
MTAA

BRENT TROUT
City Manager
City of Topeka

MATT PIVARNIK
President/CEO
Greater Topeka Partnership

GO Topeka

A Greater Topeka Partnership Organization

Prepared for JEDO
Joint Economic Development Organization

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 7

JEDO Board Meeting
May 9, 2018

DISCUSSION WITH POSSIBLE ACTION: Quality of Place & Economic Development.

JOINT ECONOMIC DEVELOPMENT ORGANIZATION (JEDO)
RESOLUTION NO. 2018-___

A RESOLUTION ESTABLISHING A POLICY FOR USE OF ECONOMIC DEVELOPMENT FUNDS TO PROMOTE QUALITY OF PLACE IN TOPEKA/SHAWNEE COUNTY

WHEREAS, the methods and means for promoting economic development in communities include the promotion of quality of place and placemaking initiatives; and

WHEREAS, JEDO recognizes the importance of quality of place when promoting Topeka and Shawnee County; and

WHEREAS, JEDO desires to establish policy and criteria for using economic development funds for quality of place and placemaking initiatives; and

NOW, THEREFORE, be it resolved by the JEDO Board as follows:

1. Quality of place consists of those characteristics of a community or region that make it distinctive from other places and attractive as an area to reside, work, and/or visit. Quality of place encompasses a community's environment, civic traditions, cultural amenities, and recreational opportunities.

2. Quality places include at least some of the following characteristics:

    a. Mixed-uses
    b. Quality public spaces
    c. Broadband enabled
    d. Multiple transportation options
    e. Multiple housing options
    f. Preservation of historic structures
    g. Community heritage
    h. Arts, culture, and creativity
    i. Recreation
    j. Green Spaces

3. JEDO shall establish the JEDO Quality of Place Fund. The Fund shall be used only on specific projects that have been approved for funding by JEDO in an open public meeting. Preference shall be given to projects that have multiple funding sources (e.g., public and private joint initiative) and projects that have been approved in a public vote.

4. JEDO shall consider the following criteria when awarding funding for a quality of place project:

Accessibility:

- Connection via public transit system
- Available to the public
- Reaches all demographics; enhances diversity and inclusion

Funding:

- Public/private partnership
- One-time award by the fund per project
- Must have a sustainable funding source
- Project has been approved by public vote

Community Connection:

- Measurable Return on Investment (ROI) – usage, dollars, change in property values, etc.
- Enhances Community Plans and Objectives (e.g., Momentum 2022 or other JEDO approved Community Plans or Objectives)
- Complementary to other community assets (both commercial and residential)
- Improves aesthetics
- Shovel ready in the near term

Excludes

- The Quality of Place Fund shall not be approved to fund Community Events.

5. Any quality of place project to be considered by JEDO must be placed on a published JEDO Agenda at least one week before its consideration in any regular or special meeting. A proponent of the funding of a quality of place project shall present the proposed project to JEDO's Economic Development Consultant. The Consultant shall review the project and provide a report to JEDO that discusses whether the proposed project meets the funding criteria and is recommended for approval by JEDO.

ADOPTED AND APPROVED BY JEDO ON _____, 2018

_____
Kevin J. Cook, JEDO Chair

ATTEST:

_____
Megan L. Barrett, JEDO Clerk

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 8

JEDO Board Meeting
May 9, 2018

Discussion: East Topeka Learning Center (Washburn Tech East)

a. Construction Project Update
b. New Markets Tax Credits Update

ETLC Project (Washburn Tech East) Update
May 9, 2018
Lalo Munoz, Chair, ETLC Taskforce
Barbara Stapleton, Vice President of Workforce & Education

Design and Construction

- Awarded construction contract was executed by Shawnee County on behalf of JEDO with Champion Builders March 14, 2018
- Project Groundbreaking was held March 15, 2018
- Construction Management Field Report dated April 23, 2018, estimates 3.1% of completion

  Current work in progress:
  - Asbestos remediation
  - Demolition
  - Transformer set for electric
  - Plumbing trenches dug
  - Windows removed
  - Trenches dug for IT

Expenditures to date

Purchase of site and closing costs	$251,909
Environmental studies and asbestos survey	$22,250
12 month insurance premium	$8,665
Attorneys fees (agreement, NMTC discussion, planning/zoning, market study review)	$11,810
City of Topeka, stormwater utility fees, *project to date*	$3,750
Property maintenance, *project to date*	$6,145
Sub total	*$304,529*
Bartlett & West, land survey, topography, zoning	$8,700
Terracon, abatement design and bid solicitation	$3,000
HTK Architects, design work	$213,903
Champion Builders, paid by Shawnee County, pending reimbursement	$97,763
Champion Builders, submitted to Shawnee County for payment	$239,623
	$867,518

New Markets Tax Credits

Columbia Capital has secured funding of New Markets Tax Credits (NMTC) to assist with the project. As the CDE (Community Development Entity), Raza Development Fund received a NMTC award allocation for the year and reserved funds for the ETLC Project. We have secured the necessary legal and accounting guidance as is required for NMTCs; and have received a term sheet from PNC New Markets Investment Partners to consider making a NMTC investment to facilitate the financing of the ETLC Project.

A primary requirement of NMTCs for this project is the creation of a Qualified Active Low-Income Community Business (QALICB), a Kansas nonprofit corporation which will hold all funds related to the project and ensure completion and success of the project outcomes. This new nonprofit entity, ETLC, Ltd., will be administered by GO Topeka staff and support, which is an entity of the Greater Topeka Partnership.

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 9

JEDO Board Meeting
May 9, 2018

ACTION ITEM: Community Broadband Task Force.

a. Presentation/Report from the Committee
b. Request to move to Phase 3 and issue Request for Information (RFI)

TILSON

On a Mission

Cover Letter for JEDO May 9, 2018 Meeting

The past 20+ years have seen tremendous developments in internet use in our national and international economy and society. The communities currently in the forefront of internet services have widely-deployed access to so-called "Gigabit" internet service, largely delivered over all-fiber optic networks. In these communities' leading-edge telecommunications infrastructure and services help attract and retain employers and the best entrepreneurial and workforce talent. Kansas City is a well-known nearby example.

In 2014, the Kansas Department of Commerce commissioned a study to determine if Topeka could achieve the market-leading levels of broadband service now found in these communities. This study examined the underlying business case using the Gigabit Cities Model (GBCM), a modeling tool developed by CostQuest Associates, a nationally and internationally known telecommunications consulting firm. It also examined the economic impact of improved broadband services. In 2017, JEDO hired Tilson an independent national telecommunications consultancy and network services firm to help examine how public-private partnerships in our area might create these types of infrastructure and services in Topeka and/or other areas of Shawnee County.

However, there are parts of Shawnee County that lack access to more basic internet services meeting the current federal definition of "broadband." Residents of these parts of the County are being left behind in their access to modern information resources and opportunities. While the negative impacts are not limited to young people, the disparity in access is an issue acutely felt in the school districts within the County that serve a rural population. This effort is also looking at how public-private partnerships using wireless technology could help provide at least a level of broadband service to these currently unserved areas that meets the federal definition of broadband service.

The first step in the current process has been to refine and validate the 2014 GBCM and economic impact study and extend the cost and business case study into areas of Shawnee County outside the City of Topeka. The current version of the Gigabit Cities Model offered the opportunity to examine a range of operating models that could be used to deploy and operate fiber networks. The studied scenarios should not be read as a list of the Project Team's recommended options for implementation in Topeka and Shawnee County. The models studied may or may not be right for this community in the form laid out in the study. They do, however, represent a range of possibilities from which the Project Team is able to learn. The primary objective of this study is to build understanding, so that JEDO and local jurisdictions are better informed during the ongoing planning process.

The results of the study are contained in greater detail within the document. At a high level, the study results identified several important conclusions for the Project Team:

- A pure private business case for deploying either a new fiber network or a new rural wireless network is challenging, especially outside the City of Topeka, but even within it.
- A long investment horizon and relatively low interest rates (such as would be consistent with public financing of infrastructure) have the potential to make a positive business case for fiber within the City of Topeka that is self-funding over the long-term. This was not the case for the study areas outside the City.
- Tilson concluded that capital costs for a City-wide fiber network are likely to be somewhat higher than estimated in the 2014 study. The total capital cost would depend a great deal on the objectives of the build-out, but are approximately $75M for a City-wide network in Topeka and $53M in Shawnee County outside of

Topeka, if the network was operated under a conventional retail services model. Note that these estimates include costs that might to a greater or lesser degree be paid for by a private partner.

- A modern rural wireless network could be built for substantially less money than a fiber-to-the-premise (FTTP) network. Based on a high-level network design consisting of a large number of small pole-mounted wireless base stations providing coverage to most of the unserved locations in rural Shawnee County, Tilson has estimated the capital cost of such a network to be approximately $7.2M. The majority of which cost would actually consist of a limited fiber network connecting the base stations from which a wireless broadband signal could be transmitted to users.

- While the study's financial modeling identifies that revenues from such a rural wireless project could not cover both its capital and operating costs to make it entirely self-funding, the analysis suggests that the project could sustain itself on an ongoing basis if its up-front capital costs were partially subsidized.

- The study included a peer review of the 2014 Economic Impact Study performed by Camoin Associates, a seasoned economic development consultancy that has performed work across the country. The review concluded that the methodology of the 2014 study was sound but recommended more conservative assumptions about the magnitude of the economic impact that improved broadband services would have. With the more conservative assumptions, the projected economic impact of improved broadband is still substantial, amounting to provide an estimated net boost to the Shawnee County economy of 3.0% (for a doubling of broadband speeds) to 6.4% (for a quadrupling) over a ten-year period. This is the equivalent of an incremental 6,000-13,000 added jobs, and $732M-$1,562M in GDP over that period.

While the economic and financial model work conducted thus far and the consideration of multiple operating scenarios for a fiber network have provided important insights, it is essential that further planning work also be informed by private sector broadband service providers. The Project Team understands that there are likely providers eager to provide their perspective, and the Project Team is eager to receive it. Because this planning project may ultimately result in a formal Request-for-Proposals (RFP) and contractual arrangements between one or more local jurisdictions in the County, it has been designed from the outset to ensure that a broad range of private providers will have the opportunity to provide information. The project plan also structures the information collection process so that any of those participating will have the opportunity to respond to a RFP, if one is issued. The Project Team therefore seeks the JEDO's authorization to proceed to the next stage in the project's plan, that is the development and issuance of a formal Request-for-Information (RFI).

An RFI would seek critical information about potential private sector involvement. This can include what service providers may be willing to do on their own to create the broadband improvements sought, without public sector involvement. In crafting public-private partnerships, there is not an expectation that JEDO or local jurisdictions will fund all of any new network. Should potential private partners express an interest in participating in a public-private partnership, it will be important to understand what type and what level of public participation they may expect or require achieving the broadband improvements we are expecting.

No decisions about how or even whether to enter into a public-private partnership need to be made now. In fact, the RFI will build on the work of the study and further inform JEDO and the various local jurisdictions about the options available for improving broadband in the City and the County. Should the JEDO Board approve proceeding with the

RFI, the Project Team would work with Tilson to draft a RFI for review and approval at the next JEDO meeting. JEDO could then receive a summary of the information learned at the subsequent JEDO Board meeting.

Although the Project Team with its consultants will develop the specific questions that the RFI will contain when this next step is authorized, we expect that a RFI would include questions in a number of subjects including the following:

- The roles in which potential private partners may have interest, including network infrastructure developer/owner, financer, network operator and/or retail Internet Service Providers
- Parties' interest in and willingness to undertake action to deploy Gigabit type networks in both Topeka and the County
- Parties' interest in and willingness to provide service in unserved parts of the County, whether via fiber, wireless, or any other type of broadband network
- Parties' interest in and potential requirements from various forms of public-private partnership
- Providers' ability and willingness to make the sought improvements without investment of public funds (or very limited public investment)

We recommend that the RFI seek comment from a wide range of broadband service providers and related parties, both those currently delivering services in Topeka and Shawnee County, as well as those that might be attracted to expand into the region.

JEDO has funded this planning effort because of the important contribution broadband services make to a healthy economy as well as creating opportunities in health care, education, delivery of public services, and community interaction. The now-completed study has brought us halfway through the expected information gathering phase. Expanding the conversation to include information from potential private sector partners and collaborators is the next important step in this effort.

TILSON

Studying Broadband Solutions for Topeka and Shawnee County

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Who We Are

- Tilson is a consulting and telecom network services company with a national practice
- We work for private and public telecom network owners and funders to plan, design, build, maintain, and manage networks
- We work with states and communities that want to understand how to obtain better broadband infrastructure and services
- Approx. 400 employees, 18 offices nationwide

Why We Are Here

- JEDO has retained Tilson to advise on developing and executing a plan to create public-private partnerships suitable for realizing the City and County's broadband goals

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Presentation Overview

- Where we are in the Planning Process
- Overview of Financial Modeling and Economic Impact Study Review
- Overview of Request-for-Information Decision
- Questions and Discussion

3

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A Few Definitions

- Fiber-to-the-Premise (FTTP)—A type of broadband network that delivers service to homes and business entirely over fiber optic cables; Gigabit-capable
- Fiber-Wireless Network—A broadband network that uses high-capacity fiber optic cables to "backhaul" nodes that distribute broadband via wireless signals to homes and businesses
- Gigabit—Having the ability to transfer data at 1 billion bits of information per second; the highest speed levels generally available to consumers today
- Gigabit Cities Model (GBCM)—A network and financial modeling tool developed by CostQuest Associates to study the cost and business case for FTTP networks in a variety of communities; used in this study and the 2014 Study

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Planning Process Overview and Stakeholder Input

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Where We Are In the Process

- Step 1: Gather Information and Build Understanding
  - Part A: Internal Analysis
    - Understand the economics of potential fiber and wireless networks in the City and County
    - Review goals and priorities with stakeholders

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Goals Identified by Stakeholder Process

1. Adequate or better broadband service in unserved parts of Shawnee County
2. Spurring the introduction of leading-edge Gigabit broadband service to the region
3. Digital Inclusion: Sharing the benefits of broadband improvements as widely as possible

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What's at Stake

"Average" Broadband

- Essential for full participation in society and economy
- Access to:
  - Education
  - Jobs and business opportunity
  - Health care information and services
  - Social participation
- Needed to retain workforce, young people

Gigabit Broadband

- Ready for new applications / new services
- "Signaling": this is a tech-ready community with solid infrastructure
- Feature for attracting and retaining workforce and entrepreneurial talent

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What is up Next in the Process

- Step 1: Gather Information and Build Understanding
  - Part A: Internal Analysis
    - Understand the economics of potential fiber and wireless networks in the City and County
    - Review goals and priorities with stakeholders
  - Part B: Service Provider Engagement ←NEXT
    - Solicit input broadly through a Request-for-Information process
- Step 2: Structure a Public-Partnership FUTURE DECISION
  - Possible Request-for-Proposals, informed by the results of Step 1
- Step 3: Implementation FUTURE DECISION

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Financial Modeling and Economic Impact Review

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What We Studied

- Validated GBCM, used in the 2014 study of a new FTTP network across City of Topeka
  - Developed local cost inputs
- Extended GBCM to the rest of Shawnee County
- Ran GBCM under 4 different types operating models used in FTTP projects across the country
- Examined the business case for a rural fiber-wireless network in unserved areas
- Critically reviewed the 2014 Economic Impact Study

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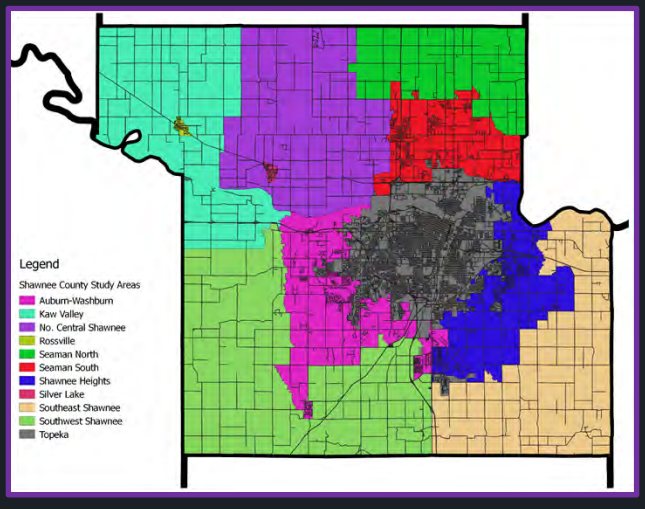
Study Areas

- FTTP: All Areas
- Fiber Wireless:
  - Kaw Valley
  - Rossville
  - No. Central Shawnee
  - Seaman North
  - Southeast Shawnee
  - Southwest Shawnee



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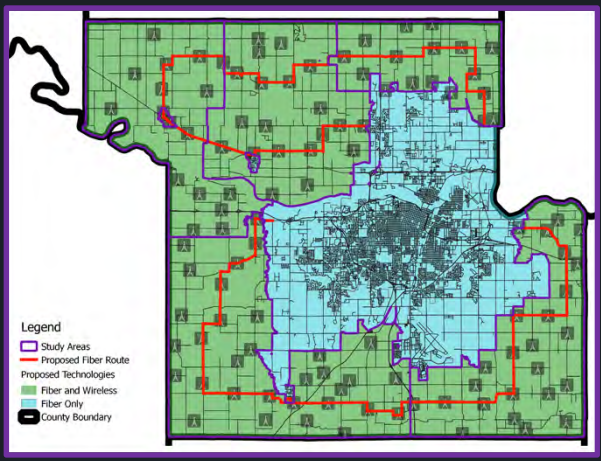
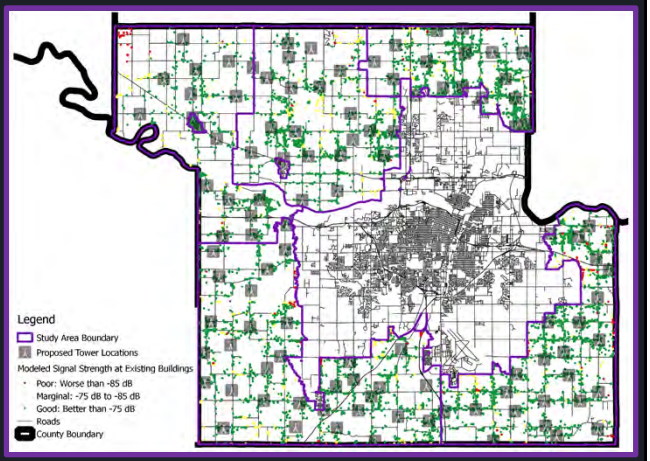
Wireless Network High Level Design





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What We Learned from the Study

- A pure private business case for FTTP across the whole City is challenging, and even more so in the County
- Public sector interest rates and investment horizons could make the FTTP business case self-supporting over the long term in the City (but not all of the County)
- The total capital investment required for a FTTP network is substantial, and probably somewhat higher than the 2014 study concluded
- A good-quality fiber-wireless network is technically feasible in rural unserved areas of Shawnee County, and at a much lower capital cost
  - But it would still not be entirely self-funding

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Camoin Associates: Peer Review of Economic Impact Study

- Original study uses reasonable inputs and methodologies in general
- However, growth rate increase assumption was too aggressive, based on existing research
- Camoin Associates' revised estimate of economic impact is lower, but still positive:
  - Estimated net boost to County economy would be 3.0% (for a doubling of broadband speeds) to 6.4% (for a quadrupling) over a ten-year period
  - Equivalent to incremental 6,000-13,000 added jobs, and $732M-$1,562M in GDP

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Some Key Observations for Future Plans

1. Full FTTP build-out will be very expensive and may or may not be fully financially self-supporting everywhere, so consider incremental options that are self-supporting and/or fit your budget.
2. Lack of adequate broadband in rural areas of Shawnee County is a pressing need and should be a high priority
   - Fiber-wireless options can be supported at a substantially lower cost than a full FTTP build-out
3. Not every investment by a local jurisdiction will necessarily be self-supporting. To the extent capital funding is available and needed, it can be targeted to achieve:
   - Coverage in unserved rural areas
   - Investments that will jump-start additional private investments in better broadband service
   - Extending infrastructure into less-advantaged, lower-income neighborhoods or high-need economic development target

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Provider Outreach / Request-for-Information

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Decision

Should JEDO proceed to the next phase of the study, which is to gather service provider input through a Request-for-Information (RFI) process?

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RFI Targeted Respondents

- Local incumbents
- Regional FTTP operators who may want to expand into a nearby market
- Companies seeking opportunities in mid-size markets nationally to operate FTTP networks under contract or deliver Internet service over FTTP networks
- Companies seeking opportunities nationally and internationally to develop FTTP infrastructure in a PPP
- Wireless ISPs

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Recommended Topics to Explore within RFI

- What are service providers willing to do without substantial public sector investment?
- Interest in and requirements for partnering with local jurisdictions who make investments in targeted fiber projects:
  - Fiber on key routes
  - Fiber to wireless nodes
  - Fiber to pockets of demonstrated consumer demand
- Roles in which various private partners have interest
  - Owner-operator
  - Infrastructure owner
  - Network operator
  - Retail Internet service provider—fiber or wireless

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Proposed RFI Development, Approval, and Implementation Process

- May 2018: JEDO approves development of RFI
- May-August 2018: Project Team develops draft RFI
- Sept. 2018: Proposed RFI submitted to JEDO for review and approval
- Sept.-Oct. 2018: RFI issued; outreach to encourage responses
- Nov. 2018: Summary of RFI results to JEDO and discussion of next steps

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Questions and Discussion

Reviewing the Business Case and Economic Impact of Broadband Alternatives for Topeka and Shawnee County

prepared for

City of Topeka and Shawnee County, Kansas

Joint Economic Development Organization

April 2018

TILSON

16 Middle Street, 4th Floor

Portland, Maine 04103

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Contents

1 Executive Summary

JEDO retained Tilson to evaluate the feasibility of several potential business models for enabling a new broadband network in the City of Topeka and Shawnee County.

This work has been ongoing since 2014, when the Kansas Department of Commerce commissioned an economic impact study of the installation of a high-speed broadband network on the City of Topeka and Shawnee County (the "2014 Impact Study"). As part of that work, Vision360, an economic consulting firm, developed an assessment of the economic impact to the County of a potential broadband network. In addition, the economic modeling firm CostQuest developed a financial model for a potential Gigabit broadband network solution in the City of Topeka using its tool the Gigabit Cities Model (GBCM).

In this phase of the project, the Topeka and Shawnee County Joint Economic Development Organization (JEDO) would now like to formulate and execute a plan to form public-private partnerships necessary to build and operate a fiber-to-the-premise network or wireless ISP infrastructure within the City and County. Unlike the previous iteration, which focused on a solution exclusively for the City of Topeka, JEDO sought evaluation of solutions for the entire county. The planning process underway includes multiple phases.

This report is a product of the first phase of the project, in which we examine, update and extend some of the analysis produced in the 2014 study. In parallel, Tilson worked with the local Project Team assigned by JEDO to engage community stakeholders. Future phases in the project include a potential Request-for-Information to collect information from private broadband service providers and other potential private partners, potentially followed by a Request-for Proposals seeking partnerships between one or more local jurisdictions on a more specific project.

Leading up to this report, Tilson validated the mechanics of the GBCM and used its engineering expertise to provide updated cost inputs specific to the Shawnee County and Topeka region. We worked with CostQuest to extend the GBCM in several ways. We examined the business case in study areas throughout the County, both within and outside the City of Topeka. We used the option now available within the GBCM to examine the business case under different types of operating models for fiber optic network. We also examined the business case for a fiber-wireless network in rural and unserved parts of Shawnee County.

We explored five discrete operating models, four for a potential City- and County-wide fiber to the premises (FTTP) network, and one for a hybrid fiber-wireless network in rural parts of the County.

- Private Retail ISP on Private Network would be the expected base case for a private company to enter the market as a FTTP provider without public sector involvement or assistance
- Private Retail ISP on Public Network — a public entity would build its own network – either one capable of servicing the entire county, or one that could form the nucleus of a county-wide network – and hire a private ISP to offer service
- Open Access Lit — a public entity would build its own network and offer lit transport services to retail ISPs interested in offering service to end users
- Dark Fiber — a public entity would build its own network and lease fiber strands to interested ISPs wishing to offer their own services to end users

- Hybrid Fiber-Wireless Option, where a public entity would build a FTTP network in areas of Shawnee County that currently have access to average broadband service, and a wireless network to serve other areas of the County that are substantially underserved.

At this point in the analysis, no specific local sponsor (neither JEDO nor any particular local jurisdiction) is identified for the projects in these scenarios.

The economic modeling of these five scenarios permits a number of high-level conclusions:

- A business case for deploying a new fiber network entirely with private capital is challenging, especially outside the City of Topeka, but even within it.
- The scenarios premised on public financing of fiber infrastructure show the potential to make a business case for fiber within the City of Topeka that is self-funding over the long-term. These scenarios assume a long investment horizon and relatively low interest rates for the network owner. The economics for a similar undertaking in unincorporated Shawnee County are far more challenging.
- Capital costs for a City-wide fiber network are likely to be somewhat higher than estimated in the 2014 study. The total capital cost would depend a great deal on the objectives of the build-out, but are approximately $75M for a City-wide network in Topeka and $53M in Shawnee County outside of Topeka, if the network was operated under a conventional retail services model.
- A high-level design for a fiber-wireless network providing coverage to most of the unserved locations in rural Shawnee County generated a capital cost of approximately $7.2M. The majority of this cost would actually consist of a limited fiber network connecting the base stations from which a wireless broadband signal could be transmitted to users.
- While the modeling identifies that revenues from such a rural wireless project could not cover both its capital and operating costs to make it entirely self-funding, the analysis does suggest that the project could sustain itself on an ongoing basis if its up-front capital costs were partially subsidized.

Economic Impact Study

As part of this work, Camoin Associates, a subcontractor to Tilson, conducted a peer review of the 2014 Impact Study to validate or refute the methodology and assumptions used in that study. Camoin concludes that the 2014 Impact Study was methodologically sound and reasonable, given the difficult topic of quantifying the economic impacts of prospective broadband investments. However, Camoin believes that the assumed incremental increase in GDP over the ten-year period of between 5%-15% resulting from those broadband investments, while possible, is potentially overstated. Instead, Camoin would have used less aggressive assumptions of between 3%-6.4% based on the best available research to-date. These less aggressive assumptions result in a forecast job growth of roughly 6,000-13,000 jobs in lieu of the 2014 Impact Study's 9,800-29,000 jobs figures. The revised economic impact is equivalent to an incremental $732M-$1,562M in GDP.

2 Introduction

The City of Topeka recognizes that the availability of fast, reliable, affordable internet service is required to ensure its continued competitiveness. Broadband is essential infrastructure that supports business creation and growth; this leads to attracting and retaining young people and families in a community. Broadband is also critical infrastructure for a community. Public safety, education, health care, and employment searches rely on reliable, performant broadband networks.

In 2013, the Intergovernmental Cooperation Council agreed to work on developing ways to ensure that reliable, high-speed internet access was available to the entire Topeka community. Two years later, in 2015, Mayor Larry Wolgast convened a Broadband Task Force charged with developing an RFP for broadband consulting services. Managed by JEDO, the RFP sought responses from qualified companies to provide a road map to implementing the kind of reliable, high-speed broadband network that Topeka and greater Shawnee County require to remain competitive.

Previous Work Overview

Previous work has been done in both financial modeling and economic impact analysis of a potential broadband network, with the stated goal of advancing the region's economic and community development, as well as quality of life, through improving countywide access to and utilization of broadband. As a part of that endeavor, CostQuest, the leading telecommunications economics consultancy, previously modeled a fiber-to-the-premises (FTTP) network serving Topeka. The results were that the network would require approximately $62 million in initial capital costs. It would yield a profit of approximately $2 million per year based on an assumed 40% take rate. That is, it was assumed that 40% of Topeka residents would subscribe to service.

2014 Economic Impact Study

The City of Topeka and Shawnee County were selected as a pilot community to address high speed broadband service delivery by the Kansas Department of Commerce (KDOC) in August of 2014 as part of the Kansas Department of Commerce Statewide Broadband Initiative. As part of this selection process, KDOC commissioned an economic impact study of the installation of such a network on the City and County (the "2014 Impact Study"). This study was conducted by Bill Gillis as a subcontractor to CostQuest, Inc.

The Topeka and Shawnee County Joint Economic Development Organization (JEDO) would now like to formulate and execute a plan to form public-private partnerships necessary to build and operate a fiber-to-the-premise (FTTP) network or wireless ISP infrastructure within the City and County. As part of its due diligence, JEDO commissioned Camoin Associates, as a subcontractor to Tilson Tech, to conduct a peer review of the 2014 Impact Study to validate or refute the methodology and assumptions used in that study. Camoin's peer review of the 2014 Impact Study consisted of the following:

- Review the methodology,
- Review the key assumptions,
- Conduct a brief literature review of similar studies,
- Provide an opinion as to the validity of the methodology and assumptions used, and
- If alternate assumptions or methodologies are recommended, to note how such alternate assumptions would likely change the results of the analysis.

Camoin Associates' scope was limited to the above and, specifically, did not include undertaking a new impact analysis.

Current Status

JEDO is currently looking to better understand the project parameters of a potential broadband deployment not only within the Topeka city limits, as initially envisioned, but for all of Shawnee County. The current engagement includes CostQuest to re-run its financial model based on updated model inputs provided by Tilson, and Camoin Associates to review and comment on the previous economic impact study by Vision360.

In addition to validating and updating the prior studies, Tilson has been engaged to expand upon them. Specifically, this report discusses broadband feasibility in all of Shawnee County, not just Topeka. It expands to include a wireless option in rural areas in the event that an all-fiber solution is deemed too expensive. We will recommend a target network design and operating model, and some alternatives.

In later phases, this could be further extended to collecting current construction market information by preparing an RFI and evaluating responses. Then, a formal RFP process would ensue to identify a construction vendor. Additional items could include an examination of grant funding opportunities and mechanisms to hand off a completed network to a suitable taxing jurisdiction for implementation and operation.

Goals

The overall, long-term goal of JEDO's work is to identify the parameters under which a county-wide broadband solution could be implemented. This specific work product is intended to execute on the goal identified by JEDO in its RFP:

> *To assist JEDO to formulate and execute a plan to form public-private partnerships necessary to build and operate a fiber-to-the-premise network within the City of Topeka, and/or to build and operate fiber to the premise networks within the rural townships of Shawnee County and/or to build and operate a wireless internet service provider infrastructure within the rural areas of Shawnee County.*

The resulting plan's objective is to address the region's economic and community development, as well as quality of life, through improving countywide access and utilization of sufficient, reliable, and affordable broadband infrastructure. Regardless of a resident's location in Topeka or Shawnee County, they should have equal access to high speed internet at a reasonable price.

3 Business Case Analysis

The business case analysis uses CostQuest's Gigabit Cities Model (GBCM) to model each business case that Tilson and JEDO have agreed to analyze. CostQuest is a leading telecommunications economics consultancy, and their GBCM is used across the industry to model telecommunications investments. The GBCM is a complex, multi-variable Microsoft Excel workbook. While it has capabilities to model virtually any telecommunications investment, CostQuest customized it for JEDO's needs. The model takes as inputs a variety of assumptions about the area and network to be modeled, including:

- Demographic details of Topeka and Shawnee County
- Project financing, including potential grants and the impact of public vs. private funding mechanisms
- Capital costs of the network
- Operation and maintenance costs
- Revenues from disparate sources, depending on the operating scenario modeled

Using the various inputs, the model produces a comprehensive series of cash flows, income, and loan amortization outputs, along with summary data, to demonstrate how the modeled project would perform. This data can be used to answer questions such as:

- Is the project a good investment? What kinds of investors would be interested in taking part?
- Does the project require a capital subsidy?
- Once built, would the project be able to support itself on its revenues (i.e., pay its debt obligations and pay for maintenance/operation)? Would it require an operating subsidy?

Approach to Gigabit Cities Model Validation

We employed a two-pronged method to validating the model: first, we verified that the model's mechanics worked as expected, and then we validated the cost factors used in the model. Cost factors will be discussed in the next section.

To validate the model's mechanics, we employed a "top-down" methodology. We started with the model's outputs of projected cash flows. For each line item in the scorecard and business case sheets, we traced the calculations through the model until we arrived at either a user input field or a static lookup value. At each stage, we verified that formulae calculated what they were supposed to.

In summary, the GBCM works as expected. We discovered a small number of inconsistencies. The most serious was an Excel formula error caused by an invalid lookup function on the Neighborhood Master sheet. This error did not, however, impact the financial calculations in the model output, and CostQuest issued an updated model with a corrected function.

Unit Cost Validation

Tilson validated the unit costs for key cost drivers in the Gigabit Cities Model. The updated costs reflect current market prices for each cost in the Topeka area. Where possible, we sourced bids from multiple contractors active in the Topeka area. We then applied our internal knowledge of construction project costs and management to arrive at an all-in-one unit cost that reflects not only labor and materials, but also project management expenses.

Tilson extracted unit costs from the model for the items listed in Table 1.

Table 1 — Unit Costs of Fiber Network

Cost Area	Sub-Area	Unit of Measure	Unit Costs		
			Original	Tilson Revised	With Downtown Adder
ONT		Per Levelized Working Customer	$237.74	$466.77	NA
Drop		Per Levelized Working Customer	$108.96	$374.00	$402.50
Fiber Distribution Terminal		Per Terminal	$256.20	$713.90	$699.00
Fiber Distribution Terminal		Per FDR/DIST Foot	$1.21	$3.36	$3.29
Aerial Fiber		Per Foot	$2.81	$4.61	NA
Buried Fiber (Direct Burial)	Cable Only	Per Foot	$1.65	$4.59	NA
	Trenching and Burial	Per Foot	$5.05	$2.75	$275.00
Buried Fiber (In Conduit)	Cable Only	Per Foot	$3.71	$4.04	$3.97
	Conduit, Manholes, and Trench	Per Foot	$10.26	$4.93	$153.21
Pole	Licensing and Make Ready	Per Foot	$3.62	$4.71	NA
Fiber Service Terminal	Hardwired	Per Terminal	$19,024.86	$22,983.00	NA
Fiber Service Terminal	Plug-in	Per Terminal	$29,890.50		
Fiber Service Terminal	Hardwired	Per FDR/DIST Foot	$1.01	$1.12	NA
Fiber Service Terminal	Plug-in	Per FDR/DIST Foot	$1.59		
OLT	Hardwired	Total	$1,581,040.19	$1,637,460.00	NA
OLT	Plug-in	Total	$3,100,747.25		
Router		Total	$2,845,515.81	$2,163,763.80	NA
Land		Per Levelized Working Customer	$35.65	$26.09	$30.79
Building		Per Levelized Working Customer	$48.35	$95.91	NA

Tilson validated cost factors using a variety of methods, depending on the cost factor:

- Construction line items, such as fiber and trenching prices, were arrived at by checking prices with local construction and material vendors active in the Topeka area.
- Equipment prices, including OLTs and ONTs, were provided by Calix, a market leader. These consisted of a per subscriber estimate for materials and a labor estimate based on performance of past projects on a per subscriber basis.
- Building and real estate data were generated based on Tilson's extensive real estate and permitting data nationwide, as well as additional data researched for this project.

The GBCM includes a representation of the modeled network that is suitable for modeling financial information but not for arriving at construction-level pricing. As part of the process for determining unit costs, we also converted the model's representation of a network into parameters that would be suitable for inclusion in an RFP for construction services. These include items like network length, percent aerial, burial, and conduit. Next, we contacted two construction contractors active in the Topeka area and requested estimates on constructing the defined network. Using an average of the responses, we arrived at current, validated, market rates for the unit costs identified above.

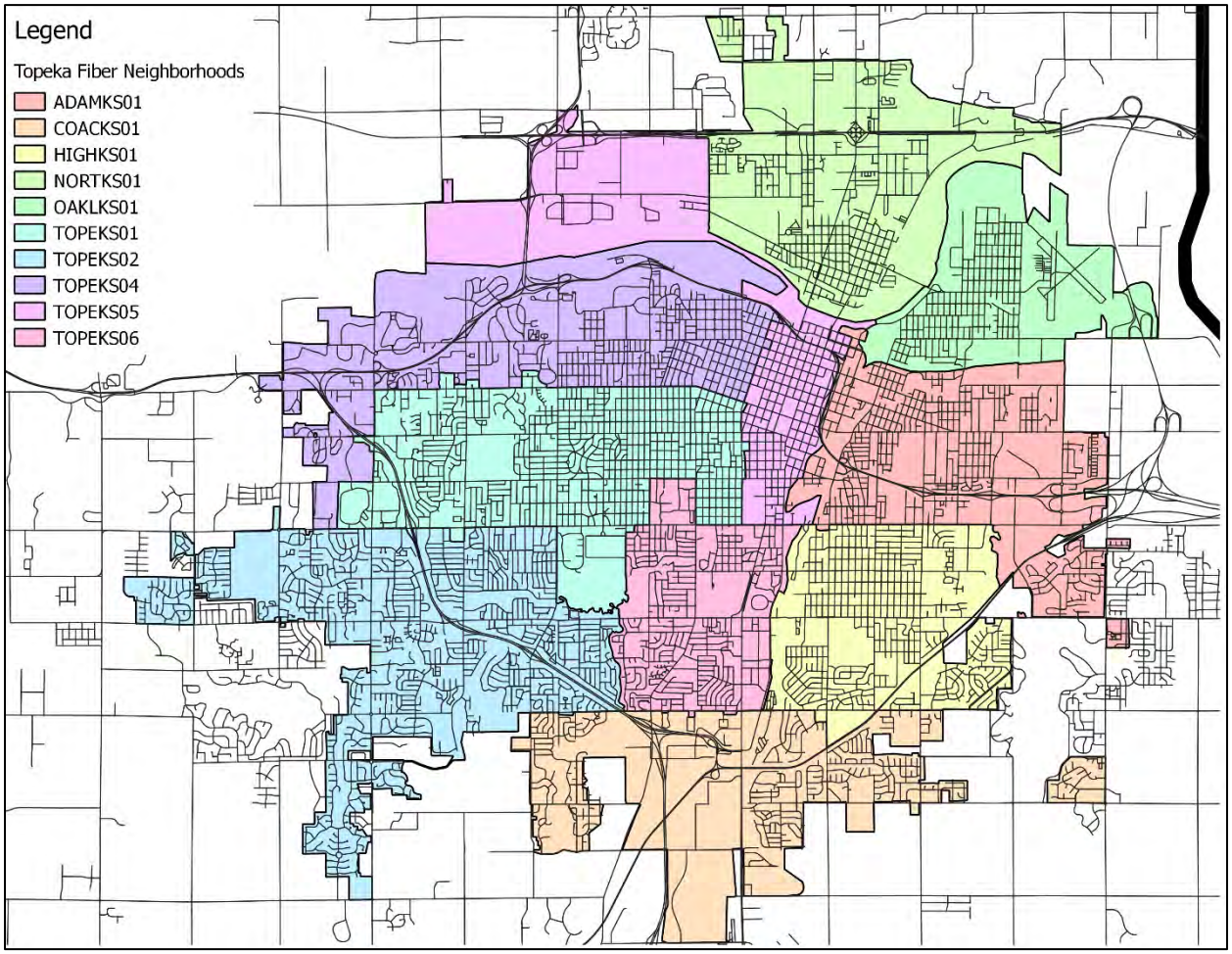

Figure 1 — Topeka Neighborhoods Modeled

Areas Modeled

The GBCM's base geographical unit is the neighborhood. Each neighborhood has attributes used in generating the model, such as population and income. Figure 1 is a map of the neighborhoods used in the model within Topeka city limits[1].

Figure 2 below shows the areas of Shawnee County, outside of Topeka, that were modeled.

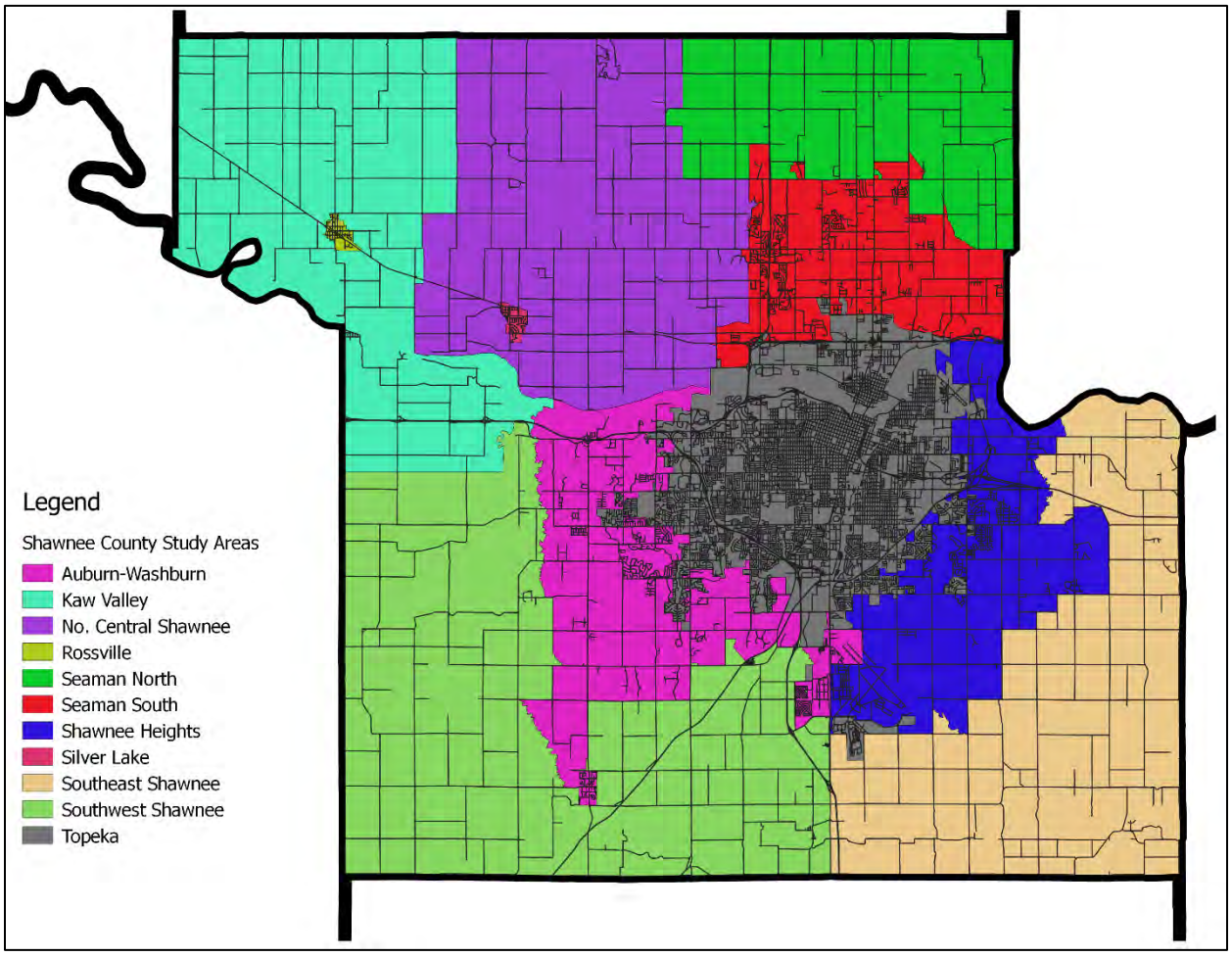

Figure 2 — County Areas Modeled

Demand Assumptions

In all scenarios, modeled demand is driven by income level. The Pew Research Center's published rates of broadband penetration by income level are modeled with demographic data in each study zone to arrive at per-zone rates of broadband demand. These are then aggregated to the entire model. Table 2, below, shows the total aggregate demand for broadband services modeled by income level. It also shows the ramp-up of demand in the model over the first ten years. In general, the model assumes that

[1] The TOPEKS03 study area (located south of the airport; not shown in the figure) was eliminated from the study because it contains only one serviceable premise.

that the provider(s) achieve(s) about one-third to one-half of their ultimate take rate in the first year (less for businesses and lower-income households, more for higher-income households), and gain customers until achieving their ultimate forecast market share by Year 6 for businesses and upper-income households, and Year 7 for lower-income households.[2]

The "Estimated Broadband Market Penetration" column shows the total percentage of households or businesses in each income bracket that subscribe to broadband services. The values in the "End of Year Market Adoption of New Entrants' Service" show how the new retail provider's customer base builds to its total projected market share.

Table 2 — Aggregate Broadband Demand and Ramp-Up by Income Level

				Please enter the expected end of year customer adoption for the New Entrant (e.g., a value of 30% indicates that the new Entrant will capture 30% of its total expected market by the end of the year specified, values should reach 100% at some point)									
				End of Year Market Adoption of New Entrants Service									
			Estimated Broadband Market Penetration	1	2	3	4	5	6	7	8	9	10
Business	All Businesses		95.0%	30.0%	75.0%	85.0%	90.0%	95.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Residential Market by Average Income	Low	High	Total Market										
	-	30,000	57.0%	40.0%	65.0%	72.5%	75.0%	80.0%	85.0%	90.0%	100.0%	100.0%	100.0%
	30,000	50,000	75.5%	42.5%	67.5%	75.0%	80.0%	85.0%	90.0%	100.0%	100.0%	100.0%	100.0%
	50,000	75,000	87.5%	45.0%	72.5%	80.0%	85.0%	90.0%	95.0%	100.0%	100.0%	100.0%	100.0%
	75,000	10,000,000	94.0%	47.5%	75.0%	82.5%	87.5%	95.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Within this total, the model also considers the overall competitiveness of the Topeka market for broadband services. Table 3 shows the baseline levels of competition modeled between the given incumbent provider type on the left, and the proposed County-wide solution. For example, the figure of 25% in the table for the Residential DSL competitiveness means that the County-wide solution would gain four customers for every one customer who would select DSL.

Table 3 — Modeled Competition Levels

	Res	Bus
Cable Market Equivalent	90.00%	80.00%
Fixed Wireless Market Equivalent	2.50%	1.00%
DSL Market Equivalent	25.00%	50.00%
HSIA Market Equivalent	65.00%	75.00%
Fiber Market Equivalent	100.00%	125.00%
Wireless Market Equivalent	5.00%	2.50%

[2] In the Open Access Lit model, demand for low-speed service is 100% right away, so the ramp-up only applies to high-speed service. See Section 4.4.

In addition to considering how demand for broadband services will vary by income, as shown in Table 2, the model also considers how income will affect the demand for low speed vs. high speed data services. Demand modeled within each income bracket is shown in Table 4 below, which shows the assumed demand for low-speed data, high-speed data and voice ("Carrier provided CVoIP) services. Demand for low and high speed data sums to 100%, since the model assumes that all premises served by the network will receive either one or the other. In the below, for example, 10% of residences with income between $50,000 and $75,000 will use the low speed data option, while 90% will opt for the high-speed service. In addition, voice services are assumed at a 35% take rate across all income brackets.[3]

Table 4 — Demand Breakdown by Data Speed and Voice Service

Please enter the Service Mix for the New Entrant
(Values in green should sum to 1 in each row)

Business	All Businesses		% Low Speed Data	% High Speed Data	% Carrier provided CVoIP	% Other Services
	Low	High				
Residential Market by Average Income	-	30,000	35.0%	65.0%	35%	0%
	30,000	50,000	25.0%	75.0%	35%	0%
	50,000	75,000	10.0%	90.0%	35%	0%
	75,000	10,000,000	5.0%	95.0%	35%	0%

[3] Section 4 identifies how the model attributes revenue, derived from different services, differently under various operating scenarios. The Open Access and Dark Fiber scenarios do not use a voice service take rate because it does not affect the revenue of the network owner in those scenarios.

4 Operating Scenarios Modeled

Overview

This section discusses four business model scenarios for operating a City or County-wide FTTP network that the GBCM can produce. These scenarios represent a range of options under which such a network could be operated and that various communities have pursued. At this stage in the planning process, we present these scenarios as part of a financial modeling exercise that can provide useful information about the economics of a FTTP network in the County or the City. We do not present these scenarios as a final recommendation that JEDO or another local jurisdiction should pursue exactly as described. The business models selected herein are intended as guideposts. The boundaries between them are also not absolute, since each scenario can consist of a range of possibilities. For example, "operating" a network can consist, in part, of building a Network Operations Center and hiring staff to run it, hiring an outside company to do the same thing, or anything in between.

In thinking about the operating structures involving public-private partnerships, it is vital to bear in mind that the parameters of these partnerships are open to substantial negotiation. There are myriad ways to structure these agreements. These can address, for example, responsibility for paying operating costs, revenue sharing, payment arrangements, service levels, speeds, network build-out, prices, or other factors that help the community partner address its goals. Another important consideration is payment structures. The local public partner would need to come to an agreement with an owner or operator on how each entity gets paid. These arrangements could consist of a set fee, minimum or maximum amount, percent of revenue, or no revenue sharing but using Shawnee County's negotiating leverage to achieve the best deal for residents.

Table 5 – Ownership and Operational Models

Model	Ownership	Who operates facilities	Who takes operating risk	Who gets revenue
Private Retail Owner-Operator	Private ISP	Private ISP	Private ISP	Private ISP
Private Operator on Public Network	City/County	Private ISP	Private ISP (and possibly City/County)	Private ISP (and possibly City/County)
Open Access Lit	City/County	City/County	City/County	City/County and Private ISPs
Dark Fiber	City/County	City/County and Private ISP	Private ISP (and City/County to a lesser extent)	City/County and Private ISPs

Table 5 provides the parameters of each operating model. Each of these operating models implies differing levels of public responsibility and ownership. In addition, the County's level of operational responsibility is a function of both the capital cost strategy and the operating model. For example, a local public partner would have a considerably less complex set of duties to perform (or contract for) with a dark fiber network than for a lit fiber network. Shawnee County and Topeka City leaders, in consideration of residents' needs and desires, can determine each model's suitability for the city's needs and comfort with risk and ownership profiles.

The remainder of this section examines each of the four business models. Each model has a short name that is used in the Gigabit Cities Model. The table below shows the GBCM short name and a brief description of the model.

Table 6 — Business Models Summary

Operating Model	GBCM Short Name	Description
Private Retail Owner-Operator	Retail NoStructure	Private ISP builds, owns, and operates network
Public Network, With Option for Private Operator	Retail WithStructure	Network built with public funds and operated by either public entity or private ISP
Open Access Lit Service Provider	Open Access	Public entity builds network and provides wholesale lit transport to retail ISP(s)
Dark Fiber	Dark Fiber	Public entity builds network and leases dark fiber to retail ISP(s)

For the purpose of this exercise, the model assumes a relatively simple set of service offerings. In the first three scenarios, it assumes that users have the opportunity to receive a high-speed (Gigabit) data service, a low-speed basic internet service, (10 Mbps), and a voice telephone service. In the case of the two "Retail" scenarios, the model assumes that the network operator provides the low-speed data service for the price of a one-time installation fee, but no recurring costs. In the "Open Access" model, the model assumes that a funding mechanism other than user fees is used to pay for the cost of the network and the low-speed data service, which is made available to all premises at no additional cost. This assumption about low-speed data service represent a public-private partnership, or an agreement with a private operator, that seeks to provide at least a basic benefit to all in the County or City.

In all of these scenarios users may upgrade to the high speed service and/or add voice at an additional cost. In the two "Retail" scenarios, customers sign up with the ISP operating the network and the network owner retains the revenue from the additional services. In the Open Access scenario, the network owner simply delivers the high-speed data or voice traffic to a point of interconnection with the end user's choice of ISP. The ISP receives the revenue form the end user from these additional services, but provides a share back to the network owner.

In the "Dark Fiber" scenario, the service offerings are even simpler from the point of view of the network owner. The network owner simply leases dark fiber optic strands connecting buildings in the City or County to ISPs as a wholesale service. The ISPs then light up these tiny glass lines using their own equipment to provide services of their choosing to end users. The services offered by the ISPs to the end users (their customers) can include the same low-speed data, high-speed data, voice services, or any other communications services that the ISP chooses to sell. The model assumes that the network operator charges the same base fee per premise that the ISP connects using the dark fiber network, except that dark fiber connections used by the ISP to provide high-speed data service would be subject to a small additional revenue-sharing surcharge.

4.1.1 Take Rate Calculations

A vital statistic in the below sections is take rate. Take rate is the average percentage of customers who subscribe to service. It can be calculated in multiple ways. The below figures, however, show differing modeled take rates within the Subscriber Statistics tables. These take rates are calculated as follows: each neighborhood's modeled take rate, based on general income data, is multiplied by the number of

residences in that neighborhood. Then, the sum of these neighborhood-level take rates is divided by the total number of residences across all study areas to arrive at a single, integrated estimation. In other words, as noted in each table, these take rates are market-wide approximations, levelized over the first ten years of the project life. Different products – such as low-speed or high-speed data, or voice services – will have different take rates, but they roll up into this average value.

Private Retail Owner-Operator (Retail NoStructure)

4.1.2 Description

In this scenario, a private service provider builds, extends, or delivers service over a network that it owns and operates itself. This scenario represents a "base case" of the economic viability for a FTTP network in the region, absent substantial public intervention. City or County involvement in the project is minimal, and may be limited to activities such as serving as an anchor customer of the network, or streamlining permitting and access to required elements such as rights of way.

Operating Costs

The ISP assumes the costs of operating the network. This includes physical maintenance and operation of the fiber, as well as customer-facing operations. The ISP would also receive all the user fees charged to subscribers. The County would not be directly exposed to the network's operating costs

Risks

This type of scenario minimizes the direct financial risk to the local jurisdictions. The greater risk under this model is that it may have the least difference from the status quo situation, and therefore the greatest risk of not achieving results that are very different from the status quo.

Control

The City and County would have essentially no direct control of the network or what services offered over it would be. Their ability to influence the outcome would be limited to whatever concessions a private operator might agree to for any limited incentives offered.

4.1.3 Key Assumptions

The project is funded by private capital, with a timeframe for return of capital and margin on the capital investment made accordingly.

The ISP providing service would provide two tiers of internet access, a lower-speed one and a higher-speed one, as well as an optional phone service. No video service is contemplated at this time, since content licensing fees can be prohibitively expensive, especially for smaller providers. Also, most popular video content is available to stream via various platforms. Prices modeled for service are shown in Table 7.

Table 7 — Private Retail ISP and Network Fee Structure

Service	Residential		Business	
	Monthly Charge	Installation Fee	Monthly Charge	Installation Fee
Higher-Speed Data (1 Gbps)	$70	$300	$100	$300
Lower-Speed Data (10 Mbps)	$0	$300	Not Available	Not Available
Telephone (per line)	$20	N/A	$20	N/A

For each area modeled, the GBCM determines an average internet take rate based on that neighborhood's average income. These correlations of internet subscription rates and income are published by Pew Research.

This scenario assumes 75% equity financing, with the remainder debt at 5.5% interest.

4.1.4 GBCM Output Summary

4.1.4.1 Total Capital Expenditure

The Gigabit Cities Model tracks three types of capital expenditure: up-front, success-based, and replacement. Up-front capital is the funding required to initially construct the project. Success-based capital is dependent on how many users sign up for service. An example of a success-based capital cost would be electronics at subscriber premises. Lastly, replacement capital is required periodically over the life of the network to replace or repair broken or outdated equipment and infrastructure.

The total initial investment, including up-front and success-based capital, is shown in the table below.

Table 8 — Capital Expenditure - Retail NoStructure Scenario

	Topeka	Outside Topeka	Total
Base Capital Cost	$52,445,782	$42,857,123	$95,302,905
Success-Based Capital	$22,703,119	$10,396,882	$33,100,001
Total Initial Investment	$75,148,901	$53,254,005	$128,402,906

4.1.4.2 Subscriber Statistics

The below two tables show key statistics modeled for the Topeka network and the greater Shawnee County network. Total Locations is the sum of housing units and businesses in each study area. Total Subscribers is the sum of Residential and Business subscribers after the take rate ramp-up is complete. The Assumed Take Rate is a levelized average over the project's first ten years, based on the income-based broadband subscription rates previously described for each neighborhood in the study area. The Total Subscribers number divided by the Total Locations is an alternative way to calculate take rate, which reflects the final and highest take rate modeled.

Within Topeka

Total Locations:	70,246.00	Housing Units:	59,670.00	Business Locations:	10,576.00
Assumed Take Rate:	39.4%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	24,797.30	Residential:	20,211.50	Business/Orgs:	4,585.80

Outside Topeka

Total Locations:	22,653.00	Housing Units:	20,108.00	Business Locations:	2,545.00
Assumed Take Rate:	37.3%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			

Total Subscribers:	8,074.42	Residential:	7,175.92	Business/Orgs:	898.51

4.1.4.3 Business Case Summary

Below are three tables for each model: within Topeka and Shawnee County outside City limits. The first table shows key financial performance metrics of the network.

- Annual contribution margin is the difference between annual costs and annual revenue. Contribution margin is the net cash flow of the network. A negative value shows the average annual subsidy required to sustain the network, while a positive one shows the average amount of free cash generated.
- Net present value of the project's 30-year cash flows is a quick way to gauge the attractiveness of the modeled network as an investment and compare it to others.

The second table shows statistics per active subscriber. The first two rows, Capital per Active Line and Net Non-Recurring Cost per line, show one-time, nonrecurring costs incurred by the project divided by each active subscriber. The following rows show modeled revenue and cost per active line. Costs are further broken down into capital and operating expenses. The difference between the two, the Levelized Monthly Contribution, is the per-subscriber subsidy required (if negative) or cash generated (if positive).

Finally, the third table shows the first ten years of two key accounting metrics, net income and free cash flow. Net income is accounting profit, which includes depreciation and debt service, among others. Free cash flow is total cash generated and can be best thought of to show whether the project can sustain its own operations: negative free cash flow represents a subsidy required, while positive free cash flow represents cash generated. If a project has negative free cash flow and then positive, it would only need a subsidy for the first few years. This is also the case where the project may not be required to pay back its debt (such as if capital costs were paid for by a non-revenue bond, for example).

Within Topeka

Total Annual Costs:	$17,819,024	Annual Capital Costs:	$9,124,902	Annual Operational Costs:	$8,694,121
Annual Revenue:	$16,200,063	Annual Contribution Margin:		($1,618,961.14)	
Net Present Value of 30 Year Cash Flows			($24,576,865)		

Per Active Subscriber Statistics	Capital Per ACTIVE line	$4,049.61
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	$36.75
	Total Monthly Revenue Run Rate per ACTIVE line	$72.75
	Total Monthly Cost per ACTIVE Line Run Rate	$80.02
	Monthly Capital Costs per ACTIVE line	$40.98
	Monthly Operating Expenses Per ACTIVE line	$39.04
	Levelized Monthly Contribution per ACTIVE line Run Rate	$(7.27)

Breaking into the first ten years of cash flows shows the following:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	(6,930,823)	(7,187,757)	(3,820,730)	(1,676,313)	(562,999)	1,275,565	3,078,260	3,601,807	3,670,013	3,686,085
Free Cash Flow	(52,445,782)	(12,432,837)	(3,735,355)	4,269,223	5,095,001	5,044,849	4,781,663	4,146,303	5,870,910	5,810,339

Outside Topeka

Total Annual Costs:	$10,879,324.61	Annual Capital Costs:	$6,338,181.51	Annual Operational Costs:	$4,541,143.10
Annual Revenue:	$5,761,313.03	Annual Contribution Margin:		($5,118,011.58)	
Net Present Value of 30 Year Cash Flows		($55,416,284)			

Per Active Subscriber Statistics	Capital Per ACTIVE line	$8,411.64
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	$32.38
	Total Monthly Revenue Run Rate per ACTIVE line	$75.83
	Total Monthly Cost per ACTIVE Line Run Rate	$143.20
	Monthly Capital Costs per ACTIVE line	$83.43
	Monthly Operating Expenses Per ACTIVE line	$59.77
	Levelized Monthly Contribution per ACTIVE line Run Rate	$(67.37)

Breaking into the first ten years of cash flows shows the following:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	(6,338,951)	(8,033,241)	(5,855,984)	(4,368,277)	(3,863,193)	(2,669,306)	(1,628,755)	(1,505,111)	(1,470,533)	(1,541,807)
Free Cash Flow	(42,857,123)	(6,826,280)	(2,362,687)	484,150	399,630	4,484	(93,774)	55,484	(149,947)	(344,706)

While the City project eventually makes an accounting profit after the fifth year, it also becomes self-supporting after the third year. The County project does not make an accounting profit over its lifetime, but it does become self-supporting a few times after the third year. The two projects combined, however, can pay for their own operations.

4.1.4.4 Network Area Summary

The Network Area Summary shows the results for each neighborhood or study area modeled. It is intended to provide a better understanding of which areas tend to push the business case to a more positive one, and which ones require more support. Areas can have a negative contribution margin but a positive net present value because the net present value calculation in this table assumes that all the network's assets will be sold after 30 years. In evaluating the individual areas, it is more conservative and reflective of real-world operating considerations to focus on the annual contribution margin.

Within Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	64,607	24,797	$17,819,023.73	$16,200,062.60	($1,618,961.14)	
ADAMKS01	4,603	1,312	$1,166,762.69	$756,246.35	($410,516.33)	Adams Heights
COACKS01	4,370	1,789	$1,239,802.83	$1,216,412.91	($23,389.92)	Coachlight Village s South
HIGHKS01	6,363	2,303	$1,677,943.32	$1,316,104.38	($361,838.94)	Highland Park
NORTKS01	3,873	1,545	$1,188,339.32	$955,694.80	($232,644.52)	North Topeka
OAKLKS01	2,851	1,090	$777,237.20	$616,158.21	($161,078.99)	Oakland
TOPEKS01	12,388	4,619	$3,247,008.91	$3,087,163.50	($159,845.42)	Big Shunga Park North
TOPEKS02	13,796	6,226	$4,204,429.72	$4,245,569.67	$41,139.95	Arrowhead Place
TOPEKS04	6,960	2,599	$1,829,935.11	$1,739,310.26	($90,624.85)	Arbor Valley North
TOPEKS05	3,977	1,168	$951,971.15	$817,808.52	($134,162.63)	North Topeka West and Shunganunga Creek North
TOPEKS06	5,426	2,146	$1,535,593.47	$1,449,593.99	($85,999.48)	Cox

Outside Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	22,080	8,074	$10,879,324.61	$5,761,313.03	($5,118,011.58)	
ABWBKSCQ	6,086	1,911	$2,080,601.22	$1,369,864.09	($710,737.13)	Auburn-Washburn
CTSWKSCQ	1,166	488	$919,825.88	$349,349.95	($570,475.93)	No. Central Shawnee
KWVLKSCQ	644	272	$782,880.96	$185,802.67	($597,078.29)	Kaw Valley
RSVLKSCQ	521	155	$151,296.75	$105,533.03	($45,763.72)	Rossville
SMNTKSCQ	1,129	508	$734,164.74	$363,588.82	($370,575.92)	Seaman North
SMSTKSCQ	5,115	1,841	$1,849,740.28	$1,312,226.19	($537,514.09)	Seaman South
STSWKSCQ	1,487	679	$1,214,666.24	$488,847.36	($725,818.88)	Southeast Shawnee
SVLKKSCQ	680	215	$171,790.42	$146,508.30	($25,282.12)	Silver Lake
SWHTKSCQ	3,730	1,231	$1,470,699.21	$883,166.19	($587,533.02)	Shawnee Heights
SWSWKSCQ	1,522	775	$1,503,658.91	$556,426.44	($947,232.47)	Southwest Shawnee

4.1.4.5 Key Model Outputs

In this scenario, the most significant outputs to inform future decision-making are the initial capital costs, and the free cash flow.

This scenario is like the scenario produced in the 2014 study for the City of Topeka. With Tilson's updated cost factors included, the estimated cost of the network is somewhat higher, approximately $75 million vs. $62 million in the prior study. It also provides an estimate of the initial capital cost for areas of the County outside of Topeka, $53 million. This represents the up-front capital a network owner would need to raise to build the network.

The free cash flow over time is a basic metric of whether the project could become self-supporting. Outside Topeka, the GBCM suggests that under this scenario the network would not be financially self-supporting. Within Topeka, the pattern of cash flow suggest that the network could eventually become self-supporting on a year-to-year basis, but that the heavy cash outlays in the early years of the network operations swamp the later positive cash flow. This suggests that the network operator under this scenario would require some sort of initial financial assistance (for example, a grant), to have an attractive business case.

Public Network, with Option for a Private Operator (Retail WithStructure)

4.1.5 Description

In this scenario, the local jurisdiction(s) finance, build and own the FTTP network. The resulting network may be operated directly by the local jurisdiction. More commonly, however, for entities without an existing utility operation (like a municipal electric utility), the jurisdiction may contract with a private ISP to operate the network and provide retail services. For the purposes of discussing operating costs, risks and control, we will assume the latter.

Operating Costs

Partnering with a private firm as the network operator typically involves shifting all or some of the operating costs on to the private partner (along with some corresponding amount of the revenue derived from the operations). The amount of cost sharing would be determined in negotiations.

Risks

Once the contract is in place between the municipality and the network operator, the private entity accepts most of the risk in running the business in exchange for increased control. A municipality can mitigate their risk of a partner's non-performance by structuring the contract so that frequent renegotiations take place. It can also make payment under the contract partly contingent on the network operator's successes or failures of as measured by established metrics. Although working with a private operator can shield the City from a degree of risk that operating costs will be greater than expected or revenues lower, it does not take these risks completely out of the equation.

Control

Risk and control are highly correlated in this type of partnership. A public entity that relinquishes control and transfers risk generally stands to benefit from the network operator's business acumen. Network provisioning, maintenance, customer support, and billing are key activities that a typical public entity does not have either experience in or reputation for. Relinquishing control to the private entity allows for the opportunity to earn and sustain revenues.

4.1.6 Key Assumptions/Inputs

While for modeling purposes, many of the assumptions are the same as in the Retail NoStructure scenario, a key difference is that this scenario uses cost of debt and borrowing terms that are more typical for public infrastructure investments with a long life. Specifically, this scenario assumes the project would be fully financed by a bond issue at an interest rate of 4% for 20 years.

Service prices are also identical to the Retail NoStructure scenario.

Table 9 — Retail Operator on Public Network Fee Structure

Service	Residential		Business	
	Monthly Charge	Installation Fee	Monthly Charge	Installation Fee
Higher-Speed Data (1 Gbps)	$70	$300	$100	$300
Lower-Speed Data (10 Mbps)	$0	$300	Not Available	Not Available
Telephone (per line)	$20	N/A	$20	N/A

4.1.7 GBCM Output Summary

4.1.7.1 Total Capital Expenditure

The Gigabit Cities Model tracks three types of capital expenditure: up-front, success-based, and replacement. Up-front capital is the funding required to initially construct the project. Success-based capital is dependent on how many users sign up for service. An example of a success-based capital cost would be electronics at subscriber premises. Lastly, replacement capital is required periodically over the life of the network to replace or repair broken or outdated equipment and infrastructure.

The total initial investment, including up-front and success-based capital, is shown in the table below.

Table 10 — Capital Expenditure - Retail WithStructure Scenario

	Topeka	Outside Topeka	Total
Base Capital Cost	$52,110,499	$42,207,954	$94,318,453
Success-Based Capital	$24,874,351	$11,261,052	$36,135,403
Total Initial Investment	$76,984,850	$53,469,006	$130,453,856

4.1.7.2 Subscriber Statistics

The below two tables show key statistics modeled for the Topeka network and the greater Shawnee County network. Total Locations is the sum of housing units and businesses in each study area. Total Subscribers is the sum of Residential and Business subscribers after the take rate ramp-up is complete. The Assumed Take Rate is a levelized average over the project's first ten years, based on the income-based broadband subscription rates previously described for each neighborhood in the study area. The Total Subscribers number divided by the Total Locations is an alternative way to calculate take rate, which reflects the final and highest take rate modeled.

Within Topeka

Total Locations:	70,246.00	Housing Units:	59,670.00	Business Locations:	10,576.00
Assumed Take Rate:	39.4%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	24,797.30	Residential:	20,211.50	Business/Orgs:	4,585.80

Outside Topeka

Total Locations:	22,653.00	Housing Units:	20,108.00	Business Locations:	2,545.00
Assumed Take Rate:	37.3%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	8,074.42	Residential:	7,175.92	Business/Orgs:	898.51

4.1.7.3 Business Case Summary

Within Topeka

Total Annual Costs:	$14,814,696.98	Annual Capital Costs:	$5,863,010.09	Annual Operational Costs:	$8,951,686.88
Annual Revenue:	$16,834,456.89	Annual Contribution Margin:		$2,019,759.91	
Net Present Value of 30 Year Cash Flows		$9,544,691			

Per Active Subscriber Statistics	Capital Per ACTIVE line	$3,992.29
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	$38.75
	Total Monthly Revenue Run Rate per ACTIVE line	$72.75
	Total Monthly Cost per ACTIVE Line Run Rate	$64.02
	Monthly Capital Costs per ACTIVE line	$25.34
	Monthly Operating Expenses Per ACTIVE line	$38.68
	Levelized Monthly Contribution per ACTIVE line Run Rate	$8.73

Breaking into the first ten years of cash flows shows the following:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	(11,073,465)	(11,468,714)	(7,159,560)	(4,391,113)	(2,823,973)	(287,557)	2,238,378	3,061,499	3,269,207	3,414,508
Free Cash Flow	(5,172,873)	(9,420,416)	100,425	(1,017,784)	(687,318)	(308,597)	(340,374)	1,650,847	1,618,680	1,277,556

The Topeka project begins to show an accounting profit after the sixth year, and can support its ongoing operations after year 7.

Outside Topeka

Total Annual Costs:	$8,466,560.72	Annual Capital Costs:	$3,861,493.54	Annual Operational Costs:	$4,605,067.18
Annual Revenue:	$5,967,002.31	Annual Contribution Margin:		($2,499,558.41)	
Net Present Value of 30 Year Cash Flows			($79,320,537)		

Per Active Subscriber Statistics	Capital Per ACTIVE line	$8,155.62
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	$33.89
	Total Monthly Revenue Run Rate per ACTIVE line	$75.85
	Total Monthly Cost per ACTIVE Line Run Rate	$107.62
	Monthly Capital Costs per ACTIVE line	$49.08
	Monthly Operating Expenses Per ACTIVE line	$58.53
	Levelized Monthly Contribution per ACTIVE line Run Rate	($31.77)

Breaking into the first ten years of cash flows shows the following:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	(9,738,985)	(12,041,285)	(9,279,770)	(7,372,782)	(6,648,856)	(5,011,407)	(3,561,120)	(3,304,099)	(3,164,398)	(3,167,912)
Free Cash Flow	(4,959,681)	(7,311,131)	(3,564,051)	(5,149,054)	(5,380,375)	(5,043,956)	(4,497,414)	(4,658,449)	(4,842,098)	(5,041,430)

Unlike the Topeka city project, the project in the remainder of Shawnee County will require a permanent operating subsidy. Even combined with the relatively more attractive Topeka project, it will still require a subsidy.

4.1.7.4 Network Area Summary

The Network Area Summary shows the results for each neighborhood or study area modeled. It is intended to provide a better understanding of which areas tend to push the business case to a more positive one, and which ones require more support. Areas can have a negative contribution margin but a positive net present value because the net present value calculation in this table assumes that all the

network's assets will be sold after 30 years. In evaluating the individual areas, it is more conservative and reflective of real-world operating considerations to focus on the annual contribution margin.

Within Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	64,607	24,797	$14,814,696.98	$16,834,456.89	$2,019,759.91	
ADAMKS01	4,603	1,312	$942,628.84	$787,246.63	($155,382.20)	Adams Heights
COACKS01	4,370	1,789	$1,026,232.30	$1,261,844.25	$235,611.95	Coachlight Village s South
HIGHKS01	6,363	2,303	$1,388,252.09	$1,368,687.12	($19,564.97)	Highland Park
NORTKS01	3,873	1,545	$975,615.81	$993,885.16	$18,269.35	North Topeka
OAKLKS01	2,851	1,090	$642,268.59	$640,775.08	($1,493.50)	Oakland
TOPEKS01	12,388	4,619	$2,716,852.56	$3,210,512.46	$493,659.89	Big Shunga Park North
TOPEKS02	13,796	6,226	$3,539,469.80	$4,404,259.66	$864,789.85	Arrowhead Place
TOPEKS04	6,960	2,599	$1,519,475.22	$1,808,805.48	$289,330.27	Arbor Valley North
TOPEKS05	3,977	1,168	$784,221.71	$850,925.86	$66,704.15	North Topeka West and Shunganunga Creek North
TOPEKS06	5,426	2,146	$1,279,680.05	$1,507,515.18	$227,835.13	Cox

Outside Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	22,080	8,074	$8,466,560.72	$5,967,002.31	($2,499,558.41)	
ABWBKSCQ	6,086	1,911	$1,646,367.37	$1,418,610.36	($227,757.01)	Auburn-Washburn
CTSWKSCQ	1,166	488	$701,521.70	$361,776.45	($339,745.24)	No. Central Shawnee
KWVLKSCQ	644	272	$584,227.47	$192,747.58	($391,479.89)	Kaw Valley
RSVLKSCQ	521	155	$121,871.21	$109,476.02	($12,395.19)	Rossville
SMNTKSCQ	1,129	508	$567,992.41	$376,506.64	($191,485.77)	Seaman North
SMSTKSCQ	5,115	1,841	$1,475,201.92	$1,358,759.96	($116,441.96)	Seaman South
STSWKSCQ	1,487	679	$927,692.79	$506,288.59	($421,404.21)	Southeast Shawnee
SVLKKSCQ	680	215	$140,146.62	$151,986.11	$11,839.49	Silver Lake
SWHTKSCQ	3,730	1,231	$1,158,865.24	$914,609.10	($244,256.14)	Shawnee Heights
SWSWKSCQ	1,522	775	$1,142,673.99	$576,241.52	($566,432.48)	Southwest Shawnee

4.1.7.5 Key Model Outputs

In this scenario, the most significant outputs to inform future decision-making are the initial capital costs, and the free cash flow.

The initial capital costs in this scenario are like those of the Retail NoStructure, the estimated cost of the network is somewhat higher, approximately $77 million for the City of Topeka and for areas of the County outside of Topeka, $53 million. This represents the up-front capital a network owner would need to raise to build the network.

The free cash flow over time is a basic metric of whether the project could become self-supporting. Outside Topeka, the GBCM suggests that under this scenario the network would not be financially self-supporting. Within Topeka, the pattern of cash flow suggest that the network would eventually become self-supporting on a year-to-year basis, and eventually overcome initial deficits in the early years of the network operations with later positive cash flow to have a positive Net Present Value of cash flows over a 30 year project period.

Open Access Lit Service Provider (OpenAccess)

4.1.8 Description

In an open access model, the network owner provides nondiscriminatory, transparent pricing for service providers to access the network, with an ultimate goal of market competition. In a pure open access model, the network owner does not compete with retail providers on the network for end user customers. However, some open access models can involve a network operator that offers both retail service and wholesale access to the network. In this scenario, we have assumed that all properties receive a low-speed service from a default provider/network operator, but may upgrade to higher-speed services from one of a number of retail providers.

In this scenario, the local jurisdiction would provide lit wholesale transport services to any ISP that wished to provide retail services on the network. The "lit" nature means that the network owner controls both the physical fiber carrying the traffic, as well as the network electronics generating the optical signals carried by the fiber. Retail providers interface with the local access network, and have their traffic routed to the customers that they serve. As in the Retail WithStructure model this scenario assumes the network owner is a public local jurisdiction. The local jurisdiction can operate the network directly, but more commonly in cases without an existing municipal utility, will hire a private network operator to manage the wholesale services.

Operating Costs

Under this model, the County can have direct exposure to network operating costs. This includes both lit and dark services. On the lit side, operating costs include network electronics, bandwidth and transport services, and network operations and monitoring. Dark costs include maintenance and repair of physical cables, and administrative requirements for management and billing.

Risks

This type of operating model will provide the County with enhanced public control over the network, but a commensurate increase in risk exposure. The main risk would be a dearth of retail providers agreeing to provide services over the network. A way to mitigate this risk would be to find at least one "anchor ISP" that agrees to participate on the network prior to the network becoming generally available. There is also a risk that ISPs on the network may not perform as desired. This can be mitigated via contractual terms and market competition. If there are enough providers active on the network, then underperformers will likely fall to normal competition.

Open access networks have retail ISPs as customers, who in turn have end users as retail customers. Commonly this means that in an open access there are two levels of customer acquisition that must be successful. Retail providers will only be in a position to pay the network operator if they are in turn successful in signing up customers.

This version of an open access scenario assumes, however, that the entire community will share in the network construction and operation costs. In other words, not only the subscriber base will pay for the network. We have modeled it in the form of a non-bypassable fee directly charged to every premise passed, where every premise also gets a lower-speed service included for that fee. This should give a sense of the magnitude of expense. Furthermore, the model assumes that retail providers who succeed in signing up customers to higher level services then share revenue with the network operator. It is

important to note that this revenue model does not depend on a non-bypassable fee itself, just that there is a broad-based funding mechanism to raise a comparable amount of revenue.

Control

Since the County is providing lit services and owns the network, it has a high level of control. Standard contractual agreements would enable the County to remove ISPs. (Although, to provide ISPs predictability, removal is generally limited to defined good-cause reasons.) In the case of any anchor ISP, the agreement with that ISP should include clear scenarios and reasons where the County could remove the ISP or where the ISP could leave of its own volition. In either case, an important consideration would be to clarify what would happen to the ISP's customers and any equipment it installs to provide services.

4.1.9 Key Assumptions/Inputs

In this approach, we model that every residence and business in the served area will automatically receive access to the "low-speed" service offering,[4] with an option to voluntarily subscribe to higher-speed broadband service offered by multiple ISPs. ISPs who sell enhanced services on the network will pay a revenue sharing fee to the City/County, and those ISPs would compete on factors which include prices and speeds of service offered. The capital and base operating costs under this scenario would not depend on voluntary subscriptions or the revenue share, but instead be supported broadly by the whole community. There is a variety of broad-based revenue sources which a community might use, but to establish the size of the revenue required relative to the number of users, the scenario assumes the City or County will collect a monthly fee from every premise within the served area, a "per-parcel" fee. This is simply one way to model the necessary revenue and give an understanding of the magnitude of funds required for this operating mode. Any other funding mechanism that would raise a comparable amount of money would also serve.

The numbers in the below table are not what the end user would pay to an ISP who provided them service, except in the case of the base "low bandwidth" option where the per-parcel fee includes the cost of providing internet bandwidth to the end user. In the case of the high-speed option, the actual price paid by end users would consist of the per-parcel fee, the high speed revenue share, and an additional fee that the ISP would levy to cover its additional costs and profit margin. This last fee depends on the ISP and how it decides to structure its fees. This is something that JEDO would be able to arrive at via the RFP process for selecting ISPs.

Table 11 — Open Access Fee Structure

Monthly Fee Type	Within Topeka	Outside Topeka
Per-Parcel Fee (includes 10/10 Mbps service)	$36.50	$57.93
High Speed Revenue Share (per line)	$15.00	$15.00

The below table sums up the various fees and shows the total fee end users would pay based on different hypothetical ISP cost recovery fees, centered on Tilson's educated assumption of $25 per line for this fee.

[4] We expect that the exact speed of the offering would be set in relationship to the internet speeds commonly available at the time of deployment. It could be the equivalent of a 10 Mbps/ 10 Mbps service in today's market.

Table 12 — Potential End-User Prices for High Speed Service With Different ISP Fees

ISP Cost Recovery Fee	Total End User Price Within Topeka	Total End User Price Outside Topeka
$15	$66.50	$87.93
$20	$71.50	$92.93
$25	$76.50	$97.93
$30	$81.50	$102.93
$35	$86.50	$107.93

Since every premise automatically subscribes to service, in one sense the take rate is 100%. A more meaningful figure, however, would be the modeled take rate for enhanced, high-speed services. Since the network is publicly owned, we use financing assumptions commensurate with financing through public debt: a 4% bond issue for a 20-year term.

Lastly, it is important to note that open access model does not include in any figures for internet bandwidth. In this business model, it is the responsibility of each ISP to procure the bandwidth it needs to serve its customers. The JEDO-organized network only provides the connectivity from the ISP's designated interconnection point with its bandwidth provider to the ISP's customers.

4.1.10 GBCM Output Summary

4.1.10.1 Total Capital Expenditure

The Gigabit Cities Model tracks three types of capital expenditure: up-front, success-based, and replacement. Up-front capital is the funding required to initially construct the project. Success-based capital is dependent on how many users sign up for service. An example of a success-based capital cost would be electronics at subscriber premises. Lastly, replacement capital is required periodically over the life of the network to replace or repair broken or outdated equipment and infrastructure.

The total initial investment, including up-front and success-based capital, is shown in the table below.

Table 13 — Capital Expenditure – Open Access Scenario

	Topeka	Outside Topeka	Total
Base Capital Cost	$ 64,762,123	$45,992,827	$110,754,950
Success-Based Capital	$ 67,354,774	$31,333,707	$98,688,481
Total Initial Investment	$132,116,897	$77,326,534	$209,443,431

4.1.10.2 Subscriber Statistics

The below two tables show key statistics modeled for the Topeka network and the greater Shawnee County network. Total Locations is the sum of housing units and businesses in each study area. Total Subscribers is the sum of Residential and Business subscribers after the take rate ramp-up is complete. The Assumed Take Rate is a levelized average over the project's first ten years, based on the income-based broadband subscription rates previously described for each neighborhood in the study area. The Total Subscribers number divided by the Total Locations is an alternative way to calculate take rate, which reflects the final and highest take rate modeled.

Within Topeka

Total Locations:	70,246.00	Housing Units:	59,670.00	Business Locations:	10,576.00
Assumed Take Rate:	100.0%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	62,988.00	Residential:	54,007.00	Business/Orgs:	8,981.00

Outside Topeka

Total Locations:	22,653.00	Housing Units:	20,108.00	Business Locations:	2,545.00
Assumed Take Rate:	100.0%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	21,619.00	Residential:	19,208.00	Business/Orgs:	2,411.00

4.1.10.3 Business Case Summary

Below are three tables for each model: within Topeka and Shawnee County outside City limits. The first table shows key financial performance metrics of the network.

- Annual contribution margin is the difference between annual costs and annual revenue. Contribution margin is the net cash flow of the network. A negative value shows the average annual subsidy required to sustain the network, while a positive one shows the average amount of free cash generated.
- Net present value of the project's 30-year cash flows is a quick way to gauge the attractiveness of the modeled network as an investment and compare it to others.

The second table shows statistics per active subscriber. The first two rows, Capital per Active Line and Net Non-Recurring Cost per line, show one-time, nonrecurring costs incurred by the project divided by each active subscriber. The following rows show modeled revenue and cost per active line. Costs are further broken down into capital and operating expenses. The difference between the two, the Levelized Monthly Contribution, is the per-subscriber subsidy required (if negative) or cash generated (if positive).

Finally, the third table shows the first ten years of two key accounting metrics, net income and free cash flow. Net income is accounting profit, which includes depreciation and debt service, among others. Free cash flow is total cash generated and can be best thought of to show whether the project can sustain its own operations: negative free cash flow represents a subsidy required, while positive free cash flow represents cash generated. If a project has negative free cash flow and then positive, it would only need a subsidy for the first few years. This is also the case where the project may not be required to pay back its debt (such as if capital costs were paid for by a non-revenue bond, for example).

Within Topeka

Total Annual Costs:	$23,776,939.14	Annual Capital Costs:	$10,602,773.98	Annual Operational Costs:	$13,174,165.16
Annual Revenue:	$34,791,965.65	Annual Contribution Margin:		$11,015,026.51	
Net Present Value of 30 Year Cash Flows				$78,359,332	

Per Active Subscriber Statistics	Capital Per ACTIVE line	$1,237.63
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	($84.38)
	Total Monthly Revenue Run Rate per ACTIVE line	$148.21
	Total Monthly Cost per ACTIVE Line Run Rate	$18.56
	Monthly Capital Costs per ACTIVE line	$8.28
	Monthly Operating Expenses Per ACTIVE line	$10.28
	Levelized Monthly Contribution per ACTIVE line Run Rate	$129.65

Breaking into the first ten years of cash flows shows the following:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	2,855,452	(10,165,121)	(11,362,793)	(4,051,587)	(884,187)	1,346,856	5,510,217	7,544,548	7,316,662	7,088,941
Free Cash Flow	10,188,617	9,822,521	9,964,538	3,761,336	3,315,498	2,888,486	2,489,609	2,051,568	1,622,492	1,039,637

Outside Topeka

Total Annual Costs:	$12,259,947.54	Annual Capital Costs:	$5,842,138.00	Annual Operational Costs:	$6,417,809.54
Annual Revenue:	$17,582,304.80	Annual Contribution Margin:		$5,322,357.27	
Net Present Value of 30 Year Cash Flows				$33,723,924	

Per Active Subscriber Statistics	Capital Per ACTIVE line	$1,958.91
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	($84.38)
	Total Monthly Revenue Run Rate per ACTIVE line	$37.12
	Total Monthly Cost per ACTIVE Line Run Rate	$25.88
	Monthly Capital Costs per ACTIVE line	$12.33
	Monthly Operating Expenses Per ACTIVE line	$13.55
	Levelized Monthly Contribution per ACTIVE line Run Rate	$11.24

Breaking into the first ten years of cash flows shows the following:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	187,750	(7,185,778)	(6,727,249)	(2,707,990)	(1,180,342)	353,335	2,687,940	3,554,419	3,423,715	3,301,503
Free Cash Flow	5,395,624	5,178,927	5,152,775	1,521,614	1,264,811	1,013,189	707,423	389,208	135,702	(177,836)

The projects, either combined or separate, generate a consistent accounting profit after the fifth year but can almost immediately pay for their ongoing operations.

4.1.10.4 Network Area Summary

The Network Area Summary shows the results for each neighborhood or study area modeled. It is intended to provide a better understanding of which areas tend to push the business case to a more positive one, and which ones require more support. Areas can have a negative contribution margin but a positive net present value because the net present value calculation in this table assumes that all the network's assets will be sold after 30 years. In evaluating the individual areas, it is more conservative and reflective of real-world operating considerations to focus on the annual contribution margin.

Within Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	64,607	62,988	$23,776,939.14	$34,791,965.65	$11,015,026.51	
ADAMKS01	4,603	4,119	$1,646,839.04	$2,189,059.16	$542,220.12	Adams Heights
COACKS01	4,370	4,164	$1,613,322.18	$2,369,433.59	$756,111.41	Coachlight Village s South
HIGHKS01	6,363	5,934	$2,283,759.51	$3,239,862.19	$956,102.68	Highland Park
NORTKS01	3,873	3,604	$1,450,025.84	$1,977,093.57	$527,067.73	North Topeka
OAKLKS01	2,851	2,621	$1,029,990.32	$1,430,235.41	$400,245.09	Oakland
TOPEKS01	12,388	12,080	$4,462,336.09	$6,608,511.64	$2,146,175.55	Big Shunga Park North
TOPEKS02	13,796	14,868	$5,478,725.69	$8,460,311.87	$2,981,586.18	Arrowhead Place
TOPEKS04	6,960	6,588	$2,462,755.81	$3,604,462.98	$1,141,707.17	Arbor Valley North
TOPEKS05	3,977	3,523	$1,302,531.14	$1,908,337.38	$605,806.24	North Topeka West and Shunganunga Creek North
TOPEKS06	5,426	5,487	$2,046,653.51	$3,004,657.86	$958,004.35	Cox

Outside Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	22,080	21,619	$12,259,947.54	$17,582,304.80	$5,322,357.27	
ABWBKSCQ	6,086	5,887	$2,808,229.75	$4,791,234.86	$1,983,005.11	Auburn-Washburn
CTSWKSCQ	1,166	1,121	$868,872.67	$912,328.84	$43,456.16	No. Central Shawnee
KWVLKSCQ	644	603	$653,273.66	$486,226.23	($167,047.43)	Kaw Valley
RSVLKSCQ	521	494	$215,967.47	$398,334.59	$182,367.12	Rossville
SMNTKSCQ	1,129	1,098	$727,514.68	$893,706.69	$166,192.01	Seaman North
SMSTKSCQ	5,115	5,095	$2,433,585.05	$4,147,631.04	$1,714,045.99	Seaman South
STSWKSCQ	1,487	1,449	$1,122,527.68	$1,179,053.73	$56,526.05	Southeast Shawnee
SVLKKSCQ	680	667	$270,779.17	$537,832.33	$267,053.16	Silver Lake
SWHTKSCQ	3,730	3,754	$1,883,487.73	$3,055,112.28	$1,171,624.55	Shawnee Heights
SWSWKSCQ	1,522	1,451	$1,275,709.67	$1,180,844.22	($94,865.45)	Southwest Shawnee

4.1.10.5 Key Model Outputs

In this scenario, the most significant outputs to inform future decision-making are the initial capital costs, and the "per parcel fee."

The initial capital costs in this scenario are higher than those of the two Retail models because the model assumes that all premises in the City or County are connected, not just those that voluntarily sign up. The estimated cost of the network is approximately $132 million for the City of Topeka and, for areas of the County outside of Topeka, $77 million. This represents the up-front capital a network owner would need to raise to build the network. With the 100% build-out assumption this represents a high-water mark for capital costs estimates among all of the models.

Unlike the two Retail scenarios, the free cash flow in this scenario is somewhat less illuminating here because of differences in the way that the GBMC treats the different scenarios. In the Retail models, the network owner derives revenue from retail services, and the cost per user of these services is treated as fixed; therefore, the free cash flow "floats" in relation to this and the other assumptions. In the Open Access scenario, the network owner primarily derives revenue from a broad-based source *other* than subscribers, represented in the model by the "per parcel fee." The GBMC sets a constraint that free cash flow cannot be negative over the life of the project (although it may be in some individual years), and calculates the per parcel fee required to meet this constraint. [5] Therefore, the fact that this scenario achieves positive cash flow is no surprise as the model engineers it to do so. It is more illuminating in this scenario to note the monthly cost per parcel that the model has calculated to ensure that it does. Within the City, the model estimates that a $36.50/month fee would be required to provide every premise with a fiber optic connection and a limited-speed data connection. Assuming a hypothetical $25/month additional charge to sign up with an ISP for Gigabit service, and a $15/month revenue share back to the network owner, the resulting total cost to have service upgraded would be $76.50/month, similar to the Gigabit service rates assumed in the Retail models. In the County outside Topeka, the model has estimated that the per parcel fee required would be $57.93/month. The same $25/month

[5] The network owner also derives revenue from a revenue share from the ISPs for every premise taking a high-speed data service. The GBCM treats this revenue share as a supplemental source of income, and does not rely on it to cover the base costs of the network.

additional charge to sign up with an ISP for Gigabit service, and a $15/month revenue share would yield a total monthly cost of $97.93/month.

Dark Fiber

4.1.11 Description

Like the Open Access Lit model discussed above, the Dark Fiber option allows any ISP who is interested to participate in offering services on the network. It differs, however, in that the network owner in this scenario does not provide any lit services. Instead, the network owner merely leases fiber strands on the network to ISPs, who then locate their equipment in a facility provided by the network owner to provide their own lit services.

As in the Retail WithStructure and Open Access scenarios, this scenario assumes the network owner is a public local jurisdiction. The organizational requirements to operate a dark fiber network, however, are much simpler than those needed to provide lit services. While the network owner would still be responsible for maintenance and repair of physical cables, it would not need to monitor the network traffic flows (aside from being able to respond to breaks in the cable and dispatch repairs). Maintenance services could either be carried out by the network owner directly or by a contracted third party. Ongoing network management of dark fiber would consist of tracking which strands were leased and invoicing ISPs.

Operating Costs

Under this model, the network owner has limited exposure to network operating costs. These would be limited to the costs of operating a dark fiber network, including maintenance and repair of physical cables, and administrative requirements for management and billing. Dark network management costs and responsibilities are significantly simpler than managing a lit network.

Risks

Like a lit open access network, this type of operating model will provide the network owner with enhanced public control over the network, but a commensurate exposure to risk. As with the lit option, the main risk would be a dearth of retail providers agreeing to provide services over the network, while the network owner would be stuck with an unused network asset to maintain. A way to mitigate this risk would be to find at least one “anchor ISP” that agrees to participate on the network prior to the network becoming generally available. There is also a risk that ISPs on the network may not perform as desired. This can be mitigated via contractual terms and market competition. If there are enough providers active on the network, then underperformers will likely fall to normal competition.

Dark fiber networks can have different kinds of customers. The network owner would be looking primarily to enroll retail ISPs, who in turn have end users as retail customers. That means that, in an open access network, there are two levels of customer acquisition that must be successful. Retail providers will only be able to pay the network operator if they are in turn successful in signing up customers. Each connected premise will incur a base wholesale lease fee to lease the fiber strand(s) and provide service. Retail providers who succeed in signing up customers to higher level services then share revenue with the network operator.

In addition to retail ISPs, the network owner could lease fiber to virtually any entity in need of it. This could range from cellular or other local telecom providers who need backhaul, to institutions or companies that need to directly connect their facilities.

Control

Since the local jurisdiction owns the network, it has a moderate level of control. But, since it is at a further level of remove from end users than it would be in a retail or open access lit service provider role, its remedies and influence would be somewhat more limited. Standard contractual agreements would enable the network owner to remove ISPs. (Although, to provide ISPs predictability, removal is generally limited to defined good-cause reasons.) In the case of any anchor ISP, the agreement with that ISP should include clear scenarios and reasons where the network owner could remove the ISP or where the ISP could leave of its own volition. In either case, an important consideration would be to clarify what would happen to the ISP's customers and any equipment it installs to provide services.

4.1.12 Key Assumptions/Inputs

The Dark Fiber scenario envisions the local jurisdiction building a network and then leasing fiber strands to interested ISPs, who then provide service via their own electronics. ISPs would pay a per-connection lease fee, and then an additional portion of revenue if the connected premise subscribes to high-speed service.

Table 14 — Dark Fiber Fee Structure

Monthly Fee Type	Within Topeka	Outside Topeka
Per-Connection Lease Fee	$23.15	$46.54
High Speed Revenue Share (per line)	$5.00	$5.00

In this scenario, the model calculates the required per connection wholesale lease fee required for the network to cover its capital and operating costs, given the take rate assumptions. ISPs who choose to use the network pay the fees and then (if there is more than 1 active ISP), compete for customers on the services they offer. The model indicates that the required wholesale connection fee is about twice as high in the areas outside Topeka as it is within the City. This obviously has the potential to limit the attractiveness of the dark fiber connections to ISPs and/or require them to charge higher rates to their retail customers.

Lastly, it is important to note that the dark fiber model does not include any figures for internet bandwidth. In this business model, it is the responsibility of each ISP to procure the bandwidth it needs to serve its customers. The JEDO-organized network only provides a transport medium for the ISP's services to its customers. As with the Open Access model, every ISP will pass through the per-connection lease fee and high speed revenue share to customers. End customers will then pay the sum of these fees and a third fee used to recover ISP costs (e.g., bandwidth, customer service, network monitoring) and add a sufficient profit margin. The amount of that fee would be determined through the RFP process should JEDO choose to pursue this operating model.

Indicative all-in end user costs for high speed service with varying ISP recovery fees are in the table below, based on Tilson's educated assumption of $50 per line for this fee.

Table 15 — Potential End-User Prices for High Speed Service With Different ISP Fees

ISP Cost Recovery Fee	Total End User Price Within Topeka	Total End User Price Outside Topeka
$40	$68.15	$91.54
$45	$73.15	$96.54
$50	$78.15	$101.54
$55	$83.15	$106.54
$60	$88.15	$111.54

4.1.13 GBCM Output Summary

4.1.13.1 Total Capital Expenditure

The Gigabit Cities Model tracks three types of capital expenditure: up-front, success-based, and replacement. Up-front capital is the funding required to initially construct the project. Success-based capital is dependent on how many users sign up for service. An example of a success-based capital cost would be electronics at subscriber premises. Lastly, replacement capital is required periodically over the life of the network to replace or repair broken or outdated equipment and infrastructure.

The total initial investment, including up-front and success-based capital, is shown in the table below.

Table 16 — Capital Expenditure – Dark Fiber Scenario

	Topeka	Outside Topeka	Total
Base Capital Cost	$49,532,695	$41,013,754	$90,546,449
Success-Based Capital	$ -	$ -	$ -
Total Initial Investment	$49,532,695	$41,013,754	$90,546,449

4.1.13.2 Subscriber Statistics

The below two tables show key statistics modeled for the Topeka network and the greater Shawnee County network. Total Locations is the sum of housing units and businesses in each study area. Total Subscribers is the sum of Residential and Business subscribers after the take rate ramp-up is complete. The Assumed Take Rate is a levelized average over the project's first ten years, based on the income-based broadband subscription rates previously described for each neighborhood in the study area. The Total Subscribers number divided by the Total Locations is an alternative way to calculate take rate, which reflects the final and highest take rate modeled.

Within Topeka

Total Locations:	70,246.00	Housing Units:	59,670.00	Business Locations:	10,576.00
Assumed Take Rate:	47.8%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	30,122.75	Residential:	25,003.58	Business/Orgs:	5,119.17

Outside Topeka

Total Locations:	22,653.00	Housing Units:	20,108.00	Business Locations:	2,545.00
Assumed Take Rate:	56.2%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	12,149.08	Residential:	10,774.81	Business/Orgs:	1,374.27

4.1.13.3 Business Case Summary

Below are three tables for each model: within Topeka and Shawnee County outside City limits. The first table shows key financial performance metrics of the network.

- Annual contribution margin is the difference between annual costs and annual revenue. Contribution margin is the net cash flow of the network. A negative value shows the average annual subsidy required to sustain the network, while a positive one shows the average amount of free cash generated.
- Net present value of the project's 30-year cash flows is a quick way to gauge the attractiveness of the modeled network as an investment and compare it to others.

The second table shows statistics per active subscriber. The first two rows, Capital per Active Line and Net Non-Recurring Cost per line, show one-time, nonrecurring costs incurred by the project divided by each active subscriber. The following rows show modeled revenue and cost per active line. Costs are further broken down into capital and operating expenses. The difference between the two, the Levelized Monthly Contribution, is the per-subscriber subsidy required (if negative) or cash generated (if positive).

Finally, the third table shows the first ten years of two key accounting metrics, net income and free cash flow. Net income is accounting profit, which includes depreciation and debt service, among others. Free cash flow is total cash generated and can be best thought of to show whether the project can sustain its own operations: negative free cash flow represents a subsidy required, while positive free cash flow represents cash generated. If a project has negative free cash flow and then positive, it would only need a subsidy for the first few years. This is also the case where the project may not be required to pay back its debt (such as if capital costs were paid for by a non-revenue bond, for example).

Following are some basic details on the business case for the Dark Fiber option.

Within Topeka

Total Annual Costs:	$6,172,952.23	Annual Capital Costs:	$3,291,360.90	Annual Operational Costs:	$2,881,591.33
Annual Revenue:	$7,650,359.16	Annual Contribution Margin:		$1,477,406.93	
Net Present Value of 30 Year Cash Flows		$23,097,254			

Per Active Subscriber Statistics	Capital Per ACTIVE line	$1,165.68
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	($95.64)
	Total Monthly Revenue Run Rate per ACTIVE line	$15.00
	Total Monthly Cost per ACTIVE Line Run Rate	$12.11
	Monthly Capital Costs per ACTIVE line	$6.45
	Monthly Operating Expenses Per ACTIVE line	$5.65
	Levelized Monthly Contribution per ACTIVE line Run Rate	$2.90

Year	1	2	3	4	5	6	7	8	9	10
Net Income	(8,559,801)	(9,357,070)	(4,367,234)	(1,812,927)	(1,222,405)	758,817	2,725,293	3,002,739	2,971,330	2,918,161
Free Cash Flow	(2,951,100)	216,508	1,747,405	44,775	311,947	579,883	929,091	1,098,687	976,088	841,379

Outside Topeka

Total Annual Costs:	$4,997,651.89	Annual Capital Costs:	$2,757,892.46	Annual Operational Costs:	$2,239,759.43
Annual Revenue:	$6,066,946.53	Annual Contribution Margin:		$1,069,294.64	
Net Present Value of 30 Year Cash Flows		$10,414,217			

Per Active Subscriber Statistics	Capital Per ACTIVE line	$2,141.68
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	($92.92)
	Total Monthly Revenue Run Rate per ACTIVE line	$26.40
	Total Monthly Cost per ACTIVE Line Run Rate	$21.75
	Monthly Capital Costs per ACTIVE line	$12.00
	Monthly Operating Expenses Per ACTIVE line	$9.75
	Levelized Monthly Contribution per ACTIVE line Run Rate	$4.65

Breaking into the first ten years of cash flows shows the following:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	(7,125,925)	(7,821,716)	(3,794,032)	(1,716,335)	(1,175,983)	509,418	1,879,096	1,839,234	1,787,349	1,743,324
Free Cash Flow	(2,481,843)	105,338	1,268,974	(178,132)	94,482	361,258	391,815	262,653	135,261	23,720

Therefore, the project (combined or separate) would generate an accounting profit after its fifth year but be able to support its ongoing operations after the first year.

4.1.13.4 Network Area Summary

The Network Area Summary shows the results for each neighborhood or study area modeled. It is intended to provide a better understanding of which areas tend to push the business case to a more positive one, and which ones require more support.

Within Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	64,607	30,123	$6,172,952.23	$7,650,359.16	$1,477,406.93	
ADAMKS01	4,603	1,514	$472,498.38	$360,393.63	($112,104.76)	Adams Heights
COACKS01	4,370	2,209	$425,029.96	$582,719.29	$157,689.34	Coachlight Village s South
HIGHKS01	6,363	2,752	$586,822.80	$685,872.05	$99,049.26	Highland Park
NORTKS01	3,873	1,715	$435,374.92	$431,081.05	($4,293.87)	North Topeka
OAKLKS01	2,851	1,212	$269,217.73	$301,727.06	$32,509.32	Oakland
TOPEKS01	12,388	5,663	$1,094,401.99	$1,416,447.93	$322,045.94	Big Shunga Park North
TOPEKS02	13,796	7,891	$1,363,382.59	$2,081,668.71	$718,286.12	Arrowhead Place
TOPEKS04	6,960	3,090	$635,098.14	$773,126.18	$138,028.03	Arbor Valley North
TOPEKS05	3,977	1,489	$362,615.63	$369,406.39	$6,790.75	North Topeka West and Shunganunga Creek North
TOPEKS06	5,426	2,586	$528,510.07	$647,916.87	$119,406.80	Cox

Outside Topeka

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	22,080	12,149	$4,997,651.89	$6,066,946.53	$1,069,294.64	
ABWBKSCQ	6,086	3,324	$890,839.23	$1,663,306.62	$772,467.40	Auburn-Washburn
CTSWKSCQ	1,166	633	$460,346.55	$316,719.22	($143,627.33)	No. Central Shawnee
KWVLKSCQ	644	321	$432,563.57	$156,245.88	($276,317.69)	Kaw Valley
RSVLKSCQ	521	263	$62,972.38	$128,069.51	$65,097.13	Rossville
SMNTKSCQ	1,129	620	$338,027.67	$310,262.52	($27,765.15)	Seaman North
SMSTKSCQ	5,115	2,876	$732,403.47	$1,439,957.45	$707,553.98	Seaman South
STSWKSCQ	1,487	818	$600,315.53	$409,295.72	($191,019.81)	Southeast Shawnee
SVLKKSCQ	680	354	$64,050.28	$172,569.76	$108,519.48	Silver Lake
SWHTKSCQ	3,730	2,120	$651,949.72	$1,060,588.93	$408,639.21	Shawnee Heights
SWSWKSCQ	1,522	819	$764,183.49	$409,930.91	($354,252.58)	Southwest Shawnee

4.1.13.5 Key Model Outputs

In this scenario, the most significant outputs to inform future decision-making are the initial capital costs, and the per connection lease fee.

The initial capital costs in this scenario are the lowest of all the FTTP models because the cost of network electronics is excluded from the scenario, which is limited to the costs of the dark fiber network owner. Additional capital costs would be borne by ISPs delivering service over the network, but these are excluded from the scenario in this model. The estimated initial capital costs under this scenario would be approximately $50 million within the City and $41 million in the County outside of Topeka.

As in the Open Access scenario and unlike the two Retail scenarios, the free cash flow in this scenario is somewhat less illuminating here because of differences in the way that the GBMC treats the different scenarios. In this scenario, like in the Open Access scenario, the GBMC sets a constraint that free cash flow cannot be negative over the life of the project (although it may be in some individual years). In this scenario there is no per parcel fee. The model calculates instead the per connection lease fee required to meet the constraint only from the revenues of that wholesale per connection lease fee. [6] The model does not assume that every premise is connected, only those premises that voluntarily subscribe to a retail ISP who uses the dark fiber network on a wholesale basis. Within the City, the model estimates that a $23.15/month connection lease fee would be required of the ISPs. Assuming ISPs rolled that wholesale cost, plus a $5/month revenue share back to the network owner, into their retail price and required a hypothetical $50/month additional revenue to provide an ISP for Gigabit service, the resulting total cost to have service upgraded would be $78.15/month. In the County outside Topeka, the model has estimated that the per connection lease fee required would be $46.54/month. The same $50/month additional revenue and $5/month revenue share to provide Gigabit service, would yield a total monthly cost of $101.54/month. It is worth noting that these wholesale per connection lease fees only would produce a financially self-sustaining free cash flow if the ISPs using the network achieved the take rates assumed, which are higher than in the other scenarios.

[6] The network owner also derives revenue from a revenue share from the ISPs for every premise taking a high-speed data service. The GBCM treats this revenue share as a supplemental source of income, and does not rely on it to cover the base costs of the network.

5 Alternative: Wireless Network Option

In outlying parts of Shawnee County, the broadband problem and the opportunity is different than in Topeka and areas close to the City. In the inner part of the County, the broadband service is available that is comparable to the service available in much of America. In these areas, the question and opportunity is how to provide service that is better the norm, and that is within reach of the whole community. In outlying areas, many suffer from internet options that offer much lower speed or reliability than is available to most homes in America. One option to address these areas is to offer the same gigabit, fiber-based service we have studied for the inner parts of the County. However, fiber-to-the premise has the highest initial capital cost, and the density in the more rural areas provide fewer premises across which to spread this cost. If an all-County fiber to the premise network proves not to be feasible, we have prepared a scenario for a fixed wireless network in six outlying cost study areas with a lower capital cost that could provide true broadband internet speeds (although much lower than the FTTP option). Figure 3 shows the areas where we modeled a potential wireless network.[7]

High-Level Design and Key Assumptions

To estimate the cost of a Fixed Wireless alternative, Tilson created a high-level wireless network design covering the six study areas. This design was shaped by several key objectives and constraints, including:

- Broad coverage. We placed adequate sites to provide an estimated 90% of premises in the study area with a predicted "good" or better signal strength.
- High capacity. We set an objective that the network should be able to deliver speeds at or better than the FCC's threshold for broadband service, 25 Mbps download and 3 Mbps upload. Because the equipment we modeled could provide symmetrical service, this became the ability to provide 25 Mbps download and upload. We limited the number of premises that would be addressed by a single node (base station) to limit contention for the wireless spectrum and fiber or microwave backhaul capacity available to each node.
- Readily available spectrum. We modeled only unlicensed spectrum for which there was no question that a wireless operator would have access. It also allowed the use of less expensive equipment, which made it more feasible to increase the number of nodes to provide better in-fill coverage or capacity.[8]
- Flexible, scalable design. We selected a design in which the exact locations of wireless nodes and/or the number of nodes can change easily without radically changing the cost of the design. This creates greater flexibility in later creating a detailed design and deployment.

[7] In determining the demarcation line between fiber only and combination fiber/wireless service, we used roughly the border of where cable TV service is available based on public filings (Form 477) required by the Federal Communications Commission. The FCC requires these Form 477 filings twice a year from all providers of internet services. In an Internet Service Provider's (ISP) Form 477 filing, they list each U.S. Census Block in which they provide service, as well as the maximum advertised download and upload speeds for both residential and commercial customers. The shortcoming with this approach is that Form 477 data will show a census block as being served by a given provider if only a single premise is actually served. In places where a road or other feature bisects a census block, Cox service may only be available on one side of the road. For the purposes of this design, we have modeled wireless service in these partial blocks. This decision, of course, can be and should be re-evaluated if and when JEDO decides to proceed with a wireless solution.

[8] For modeling purposes we assumed the use of Ubiquiti AirMAx Rocket AC R5AC-LITE nodes and Ubiquiti Air Fiber 5 AF5 wireless backhaul radios.

These parameters led us to a design with many small nodes delivering service to a local area of modest size, instead of a small number of high towers delivering signal over wide areas. We assumed that all nodes would be placed on new 80' wood utility poles at locations with existing utilities and available rights-of-way. This avoids the need to acquire rooftop rights or expensive tower leases.[9]

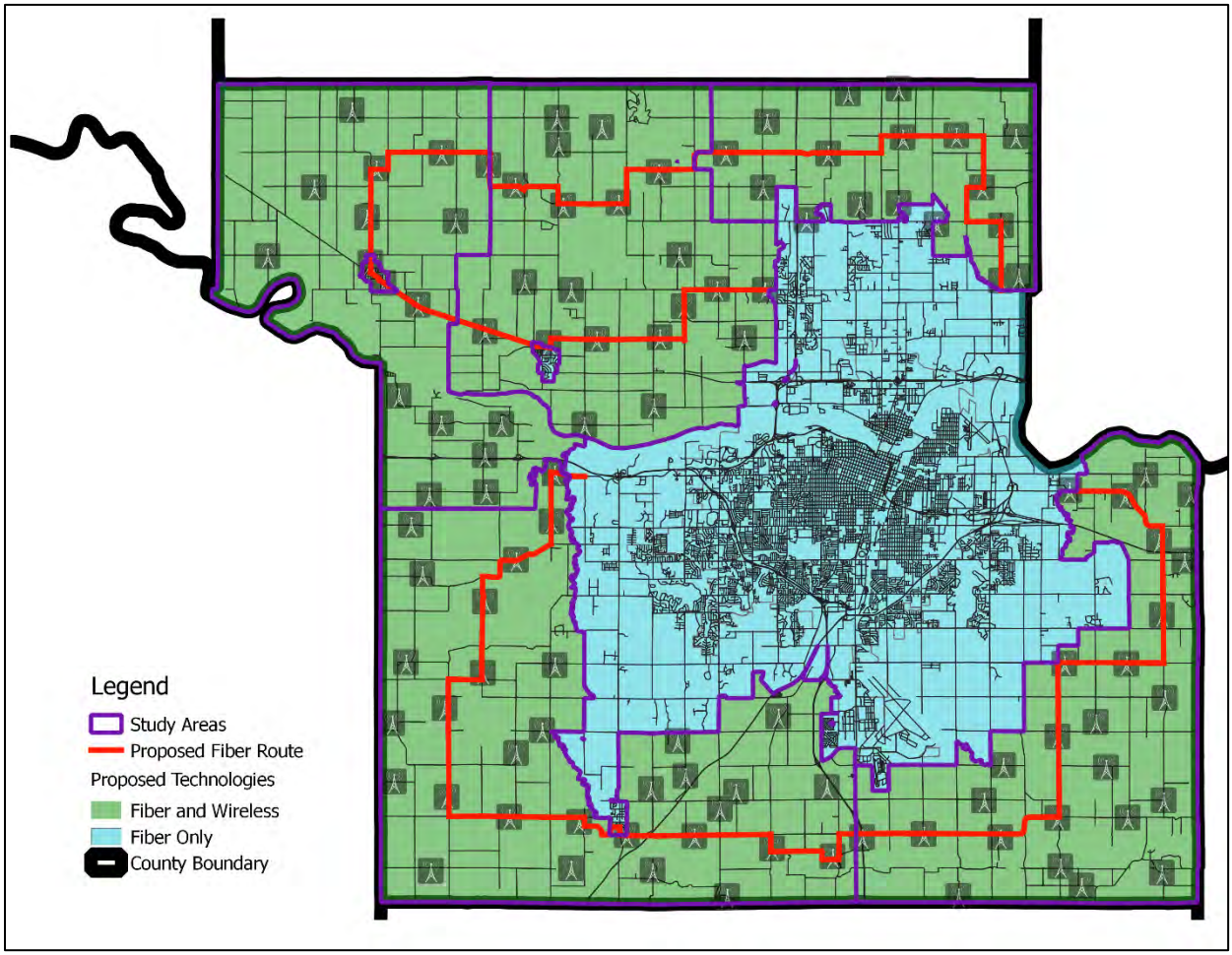

Figure 3 — Proposed Technologies

Approximate node locations are shown in Figure 3. Figure 4 shows how the parts of a wireless access network relate to each other. A core, fiber-connected layer connects both nodes that supports Point-to-MultiPoint (PtMP) connections to individual homes and businesses, as well as Point to Point (PtP) connections to other nodes off the fiber networks, which in turn relay service to additional premises via PtMP radio connections.

[9] A final detailed design might include a mixture of new poles and existing structures that are readily available on inexpensive terms. The ability to set new poles inexpensively, however, limits exposure to expensive or difficult-to-acquire leases.

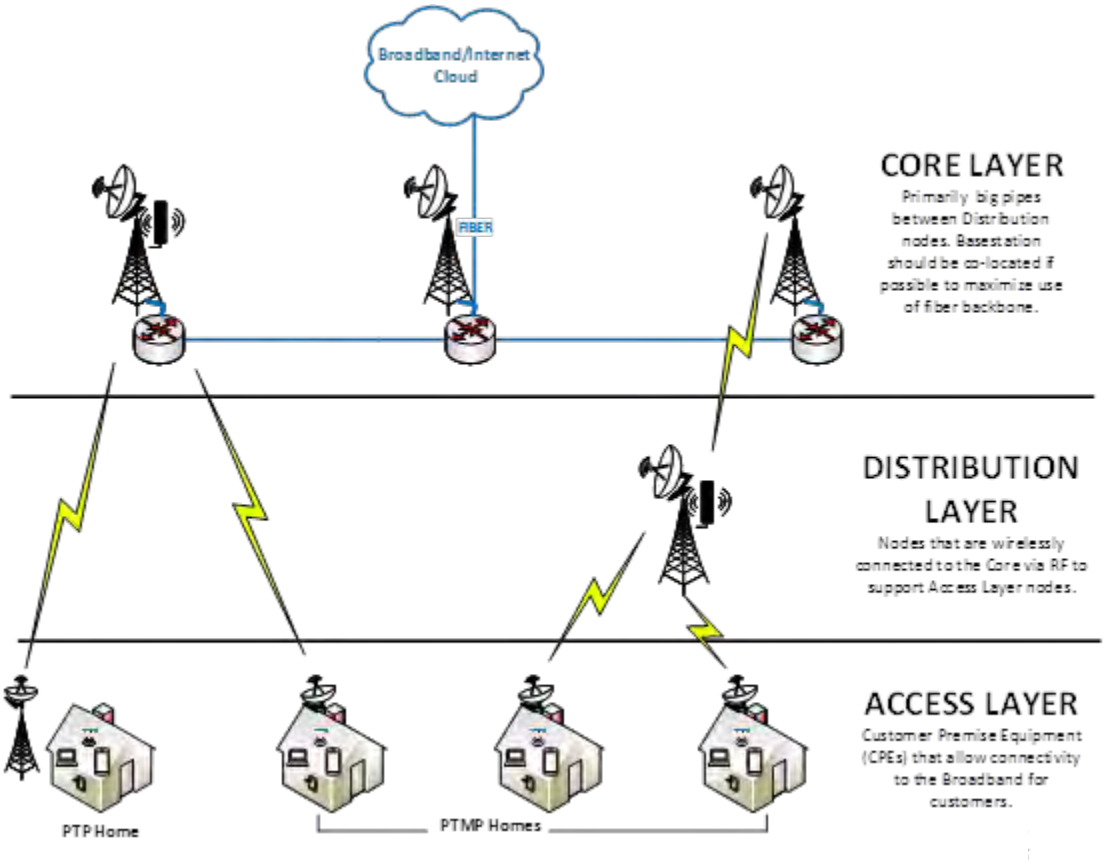

Figure 4 — Major Components of a Wireless Network

As is the case with most wireless networks delivering high-speed broadband service, our design assumed that nodes would be fed by a fiber network delivering high capacity "backhaul" broadband. To facilitate this, we modeled 97 miles of new fiber optic lines in two fiber loops through the six study areas, one north of the Kansas River and one south.

Providing backhaul connectivity to a wireless base station with wireless links can quickly become a bottleneck if not properly designed. Therefore, we attempted to place as many nodes as possible on the fiber route. We assumed that nearly half of the nodes in the design would be located on and directly fed by the fiber.[10] This fiber route for wireless backhaul will extend from the main fiber network in areas receiving fiber to the premises service. [11] The network in those areas will incorporate extra strands to provide backhaul for outlying wireless nodes.

[10] In addition, it could be possible to design this fiber route so as to make it able to directly serve homes and businesses along the route with fiber service, as an extension of the FTTP service in the "inner" study areas. However, for the sake of simplicity, we have not modeled that case here.

[11] For the purposes of this exercise, we assumed that fiber would be constructed throughout the "inner" study areas, and that the fiber in this design would interconnect with it at the study area boundary. We assumed that, while it might be desirable to located network electronics for the "outer" study areas at a central location within the "inner" study areas, the incremental fiber strands needed to connect such from a location to the boundary with the "outer" study areas could be provided as part of the design and construction of the FTTP network in the "inner" areas at a negligible incremental cost. Therefore the design only includes the fiber cable costs for the routes located in the

The remainder would be fed by Point-to-Point (PtP) wireless links between the fiber and a remote node. Most nodes that receive wireless backhaul (all of those shown in the map that are not on the red line) are only one wireless hop away from a node with a direct fiber backhaul. A minority of sites can only be reached with two "hops." Whether fed directly via fiber or via microwave, each node will have gigabit bandwidth available to it. This should be ample to provide a minimum service level of 25 Mbps symmetric service to each customer. Given the high available bandwidth and relatively low number of subscribers per tower, it may even be possible to provide greater than 25 Mbps per subscriber.

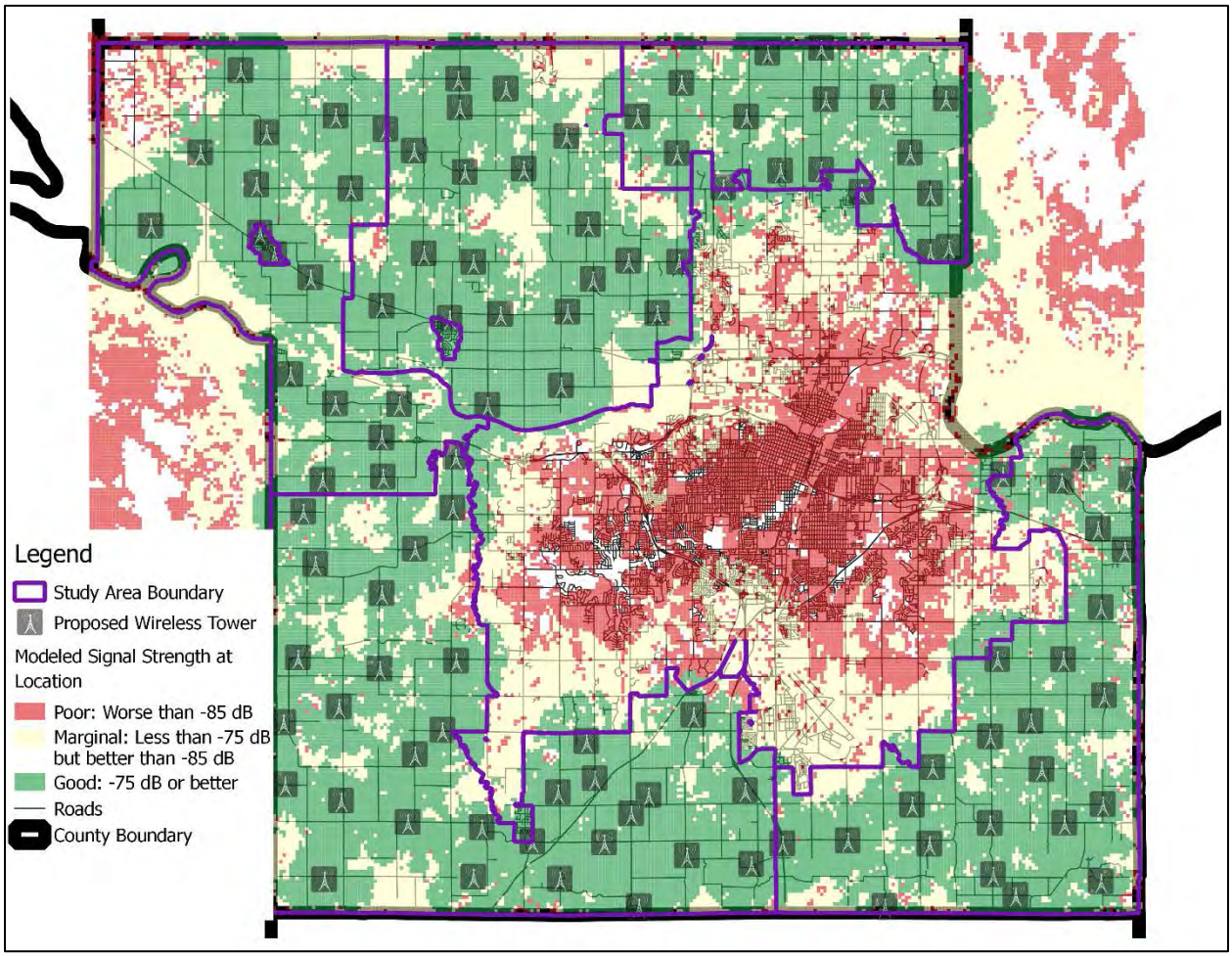

Figure 5 — Modeled Signal Strength

It is important to state that the node and fiber locations identified in a high-level design are not intended to be final and almost certainly would change in a final design that included field survey work. The objective in this high-level design is not to determine a set of optimal and final sites, but to approximate the type and aggregate number of sites required to achieve the objectives laid out above and provide the basis for a preliminary cost estimate. Furthermore, a network of small and inexpensive sites lends itself more readily to adjusting both the number and exact location of sites. This enables it to

"outer" study areas. The wireless design and cost estimate does include, however, a dedicated set of network electronics (Calix Active Ethernet) with dedicated capacity to each node and microwave backhaul link.

better respond to local siting constraints, as well as real-world coverage and capacity information gathered as the network is built and begins to add users.

Tilson used the industry standard software package, EDX Signal Pro, to model the received signal strength from the wireless network as laid out throughout the designated wireless service area. The modeling output is shown in Figure 5. Green shading indicates good signal strength of at least -75 decibels (dB), while red shows poor modeled signal strength of less than -85 dB. Yellow denotes marginal signal strength between -75 and -85 dB.

The modeled results reflect not only distance from each wireless transmitter, but also the effects of terrain and buildings on the received signal strength at a given location.

From the map in Figure 5, it may appear as though there are pockets where wireless service is not in the green. The map in Figure 6 shows modeled signal strength at each premise in Shawnee County that is to be served by wireless. The goal of this layout is to provide wireless coverage to as many premises as can be economically served. This is approximately 90% of premises.

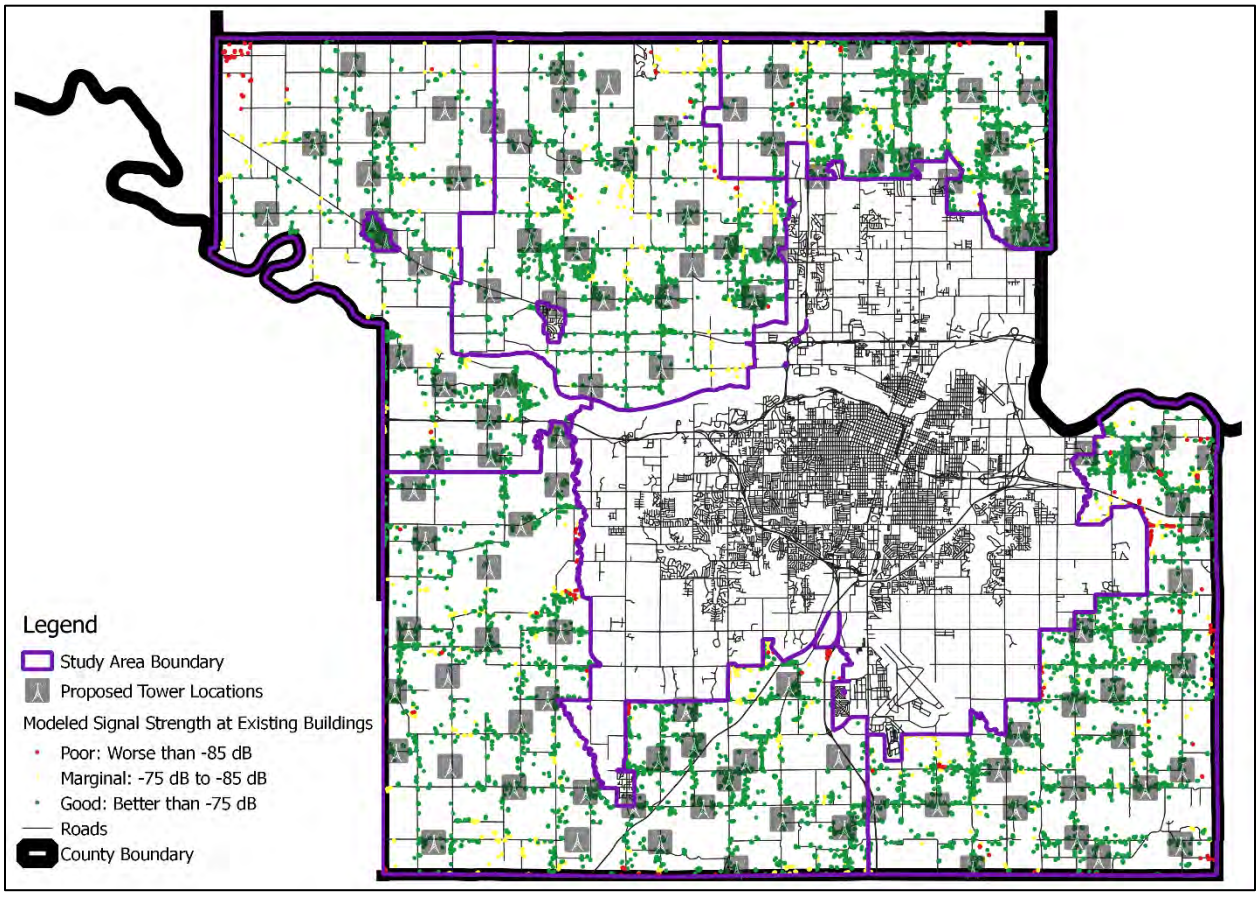

Figure 6 - Modeled Signal Strength at Individual Premises

GBCM Output Summary

5.1.1 Demand

The model assumes that every premise within wireless coverage area will use the default 25 Mbps service. No higher-speed service will be offered.

5.1.2 Total Capital Expenditure

The hybrid wireless-fiber network is estimated to cost $7,211,025 in up-front and success-based capital. Most of this cost is upfront cost (about 85%), consisting of fiber backhaul, microwave backhaul, and the radio access network (but not the radios at subscriber locations). The majority of the total project cost (about 65%) we estimate to be in the cost of the fiber backhaul network alone, about $4.68 million. We estimate that the radio access network and microwave backhaul would represent about another 20%, or $1.41 million. The remainder of the project cost would be in subscriber radios and their installation, cost which would be success-based, incurred only as customers were acquired.

5.1.3 Subscriber Statistics

The below two tables show key statistics modeled for the Topeka network and the greater Shawnee County network. Total Locations is the sum of housing units and businesses in each study area. Total Subscribers is the sum of Residential and Business subscribers after the take rate ramp-up is complete. The Assumed Take Rate is a levelized average over the project's first ten years, based on the income-based broadband subscription rates previously described for each neighborhood in the study area. The Total Subscribers number divided by the Total Locations is an alternative way to calculate take rate, which reflects the final and highest take rate modeled.

Total Locations:	6,526.00	Housing Units:	5,726.00	Business Locations:	800.00
Assumed Take Rate:	37.5%	Assumes a market-wide average take rate levelized over 10 years. Take rates vary across rate plans/services and locations types such as residential and businesses.			
Total Subscribers:	2,312.59	Residential:	2,042.22	Business/Orgs:	270.36

5.1.4 Business Case Summary

Below are three tables. The first table shows key financial performance metrics of the network.

- Annual contribution margin is the difference between annual costs and annual revenue. Contribution margin is the net cash flow of the network. A negative value shows the average annual subsidy required to sustain the network, while a positive one shows the average amount of free cash generated.
- Net present value of the project's 30-year cash flows is a quick way to gauge the attractiveness of the modeled network as an investment and compare it to others.

The second table shows statistics per active subscriber. The first two rows, Capital per Active Line and Net Non-Recurring Cost per line, show one-time, nonrecurring costs incurred by the project divided by each active subscriber. The following rows show modeled revenue and cost per active line. Costs are further broken down into capital and operating expenses. The difference between the two, the Levelized Monthly Contribution, is the per-subscriber subsidy required (if negative) or cash generated (if positive).

Finally, the third table shows the first ten years of two key accounting metrics, net income and free cash flow. Net income is accounting profit, which includes depreciation and debt service, among others. Free

cash flow is total cash generated and can be best thought of to show whether the project can sustain its own operations: negative free cash flow represents a subsidy required, while positive free cash flow represents cash generated. If a project has negative free cash flow and then positive, it would only need a subsidy for the first few years. This is also the case where the project may not be required to pay back its debt (such as if capital costs were paid for by a non-revenue bond, for example).

Total Annual Costs:	$1,085,056.48	Annual Capital Costs:	$620,456.57	Annual Operational Costs:	$464,599.91
Annual Revenue:	$944,979.21	Annual Contribution Margin:		($140,077.27)	
Net Present Value of 30 Year Cash Flows		($4,105,835)			

Per Active Subscriber Statistics	Capital Per ACTIVE line	$3,845.96
	Net Non-Recurring Cost ("Customer Turn Up") per Line TOTAL	$80.61
	Total Monthly Revenue Run Rate per ACTIVE line	$42.00
	Total Monthly Cost per ACTIVE Line Run Rate	$48.23
	Monthly Capital Costs per ACTIVE line	$27.58
	Monthly Operating Expenses Per ACTIVE line	$20.65
	Levelized Monthly Contribution per ACTIVE line Run Rate	($6.23)

The first ten years of cash flow and income are:

Year	1	2	3	4	5	6	7	8	9	10
Net Income	(1,123,114)	(1,366,232)	(908,739)	(622,008)	(523,893)	(283,005)	(80,710)	(62,013)	(54,098)	(56,853)
Free Cash Flow	(434,292)	(470,852)	(117,180)	(341,679)	(336,879)	(295,355)	(256,149)	(273,749)	(297,868)	(319,252)

5.1.5 Network Area Summary

The Network Area Summary shows the results for each neighborhood or study area modeled. It is intended to provide a better understanding of which areas tend to push the business case to a more positive one, and which ones require more support.

Region ("Fiber-hood") Summary	Total Locations Passed:	Estimated Subscribers:	Total Annual Costs:	Total Annual Revenue:	Annual Contribution Margin:	CDPServiceAreaName
All Regions	6,469	2,313	$1,085,056.48	$944,979.21	($140,077.27)	
ABWBKSCQ	0	0	$0.00	$0.00	$0.00	Auburn-Washburn
CTSWKSCQ	1,166	387	$192,500.24	$158,575.59	($33,924.65)	No. Central Shawnee
KWVLKSCQ	644	216	$123,685.20	$86,533.41	($37,151.79)	Kaw Valley
RSVLKSCQ	521	113	$29,607.96	$45,294.90	$15,686.94	Rossville
SMNTKSCQ	1,129	413	$171,873.60	$169,390.02	($2,483.58)	Seaman North
SMSTKSCQ	0	0	$0.00	$0.00	$0.00	Seaman South
STSWKSCQ	1,487	545	$244,314.88	$223,194.18	($21,120.70)	Southeast Shawnee
SVLKKSCQ	0	0	$0.00	$0.00	$0.00	Silver Lake
SWHTKSCQ	0	0	$0.00	$0.00	$0.00	Shawnee Heights
SWSWKSCQ	1,522	639	$323,074.60	$261,991.11	($61,083.49)	Southwest Shawnee

5.1.6 Key Model Outputs

In this scenario, the most significant outputs to inform future decision-making are the initial capital costs and the free cash flow.

This scenario has the lowest upfront capital costs of the scenarios studied for addressing unserved areas of Shawnee County, with an estimated initial capital cost of approximately $7.2 million. About 65% of this estimated cost is attributable to the capital cost to develop a fiber backhaul network to wireless nodes.

The free cash flow over time for this scenario is consistently negative over the first 20 years of the project, suggesting that the project could not be entirely self-funding. However, here it is also important to consider the magnitude of the deficit. The projected annual free cash flow deficit for this scenario is never above $400,000 after the first couple of years and it never exceeds the projected 20-year bond payment for this scenario of $542,000. In some years it is less than half that amount. In essence, with the benefit of some initial capital support that alleviated the need to pay the whole cost of the network, the scenario suggests that the project could afterwards support itself financially.

6 Camoin Associates Peer Review: 2014 KDOC Economic Impact Study

About Camoin Associates

Camoin Associates has provided economic development consulting services to municipalities, economic development agencies, and private enterprises since 1999. Through the services offered, Camoin Associates has had the opportunity to serve EDOs and local and state governments from Maine to California; corporations and organizations that include Lowes Home Improvement, FedEx, Volvo (Nova Bus) and the New York Islanders; as well as private developers proposing projects more than $600 million. Our reputation for detailed, place-specific, and accurate analysis has led to projects in 30 states and garnered attention from national media outlets including *Marketplace* (NPR), *Forbes* magazine, and *The Wall Street Journal*. Additionally, our marketing strategies have helped our clients gain both national and local media coverage for their projects to build public support and leverage additional funding. We are based in Saratoga Springs, NY, with regional offices in Portland, ME; Boston, MA; and Brattleboro, VT. To learn more about our experience and projects in all our service lines, please visit our website at www.camoinassociates.com. You can also find us on Twitter @camoinassociate and on Facebook.

Review of Methodology

The author lays out four future scenarios related to the "Broadband Take Rate by Download Speed", namely:

1. "Baseline" – which assumes only typical growth in broadband penetration and that there are no "proactive efforts to accelerate local broadband investment and usage." Figure 1 from page 39, copied below, shows the Baseline assumptions around take rates by bandwidth speed bracket for 2020.
2. "Low" – which assumes proactive local efforts and expanded investment.
3. "Moderate" – which assumes further proactive local efforts and expanded investment.
4. "High" – which assumes further proactive local efforts and expanded investment.

The Baseline Scenario for Shawnee County Assumes

1. The Shawnee County economy grows at approximately the same average rate as the NE Kansas projected annual growth rate for the next 10 years;
2. Broadband availability and use in Shawnee County over the next ten years will be typical of what is expected for NE Kansas without any proactive efforts to accelerate local broadband investment and usage.
3. Broadband Take Rate by Download Speed (assumed percentage of businesses accessing broadband at each speed tier) for the Baseline Scenario is as follows:

Broadband Take Rate by Bandwidth Speed Assumption by the Year 2020
(only download speeds are represented)

	3 to 10 Mbps	10 to 50 Mbps	> 50 Mbps	> 100 Mbps
Small Business	20%	50%	25%	0%
Large Business	0%	15%	60%	25%
Home-Based Business	30%	50%	20%	0%
Residents	40%	40%	10%	0%
Public Institutions	0%	20%	40%	35%

Figure 7 - Baseline Scenario Assumptions and Take Rates

Next, the author describes the then-current statistics for the County on employment, economic value, and labor income for each of the major industry sectors[12]. The author calculates the "Baseline Growth Factor" for each of those sectors, which is the product of:

- The percent of occupations within a given sector that rely on information technology, using occupational data from O_Net, and
- The projected ten-year growth rate for all jobs in that sector, using data from the Kansas Labor Information Center.

For example, the factor as calculated for the Manufacturing sector is 0.0748 for the Baseline scenario. This means that the author projects that, given the presumed take rates, as shown above in Figure 7, and the occupational composition of the Manufacturing sector, over ten years, employment in manufacturing businesses would increase by 7.48%, or 491 jobs, from the then-current level of 6,558 jobs. Using all the Baseline Growth Factors across all industries, the author projects that total employment in the Baseline scenario would rise by 8,835, from 118,108 to 126,943, or 7.48%, over ten years.[13]

To arrive at employment in the Low, Moderate and High scenarios, the author simply takes each of the Baseline Growth Factors for each industry and adds 5, 10, and 15 percentage points. So, rather than assuming the Baseline rate of 7.48% for manufacturing, the author projects 12.48%, 17.48%, and 22.48% growth in manufacturing for the Low, Moderate, and High scenarios.

The results for total employment change in each scenario are:

1. Baseline: 8,835 jobs
2. Low: 14,741 jobs
3. Moderate: 20,646 jobs
4. High: 26,551 jobs

Next, the author subtracts the Baseline change from each of the Low, Moderate, and High scenarios to arrive at the presumed impact of various levels of "proactive local efforts and expanded investment" in broadband, namely:

1. Low: 5,905 new direct jobs
2. Moderate: 11,811 new direct jobs
3. High: 17,716 new direct jobs

Finally, the author uses the IMPLAN economic impact model to take the direct job change, above, and calculate the indirect and induced jobs[14]. He then reports the final job change as the sum of the direct, indirect and induced job growth, namely:

1. Low: 9,803 total new jobs
2. Moderate: 19,606 total new jobs
3. High: 29,409 total new jobs

[12] While not explicitly stated, the major sectors the author references appear to be all 2-digit NAICS codes as defined by the US Census Bureau. See: https://www.census.gov/eos/www/naics/.
[13] The fact that the manufacturing growth rate and the total growth rate are both 7.48% is a coincidence.
[14] See "Attachment A: What is Economic Impact Analysis?" for an explanation of economic impact modeling and the terms used.

The author uses the same methodology to calculate total new economic value (i.e. output) and labor income.

Critique of Assumptions and Methodology

6.1.1 Preamble

Note that, in addition to our review the 2014 Impact Study and a brief literature review, we also contacted the author of the 2014 Impact Study, Bill Gillis, for clarification on certain points. His response is provided in Attachment B to this report, in Section 8.2, and is referred to hereafter as the "Author's Response."

6.1.2 Critique

The initial values used by the author of the 2014 Impact Study, with respect to employment, output, and income appear to be reasonable and match roughly with data we have for that period. Likewise, the methodology used to calculate the Baseline Growth Factors appears reasonable, i.e. using the State of Kansas Labor Information Center projections by industry category[15].

With respect to the various take rate assumptions used by the author, it was difficult to evaluate the reasonableness of those figures (see tables on page 39, 41-43 of the 2014 Impact Study) as no basis was provided in the original report. In fact, we noted one anomaly: the total tax rate for "Home-Based Businesses" was 100% in the "Baseline" scenario, but dropped to 95% in the "Low" impact scenario, even though all other categories either remained the same or increased and the tables generally show a large increase in overall bandwidth speed assumptions. In the Author's Response, the author refers to the Brookings Study[16] and states that the take rate increases are "loosely calibrated" to that study's findings.

Our principal concern with the 2014 Impact Study is that the Low, Moderate and High scenarios assume growth rates that are 5, 10, and 15 percentage points greater than the Baseline scenario. These growth figures drive the remainder of the analysis and are critical to the headline impact figures reported in the executive summary. In the Author's Response, he provided a quote from the Brookings Study referenced above,

> "We find that nonfarm private employment and employment in several industries is positively associated with broadband use. More specifically, for every one percentage point increase in ***broadband penetration*** in a state, employment is projected to increase by 0.2 to 0.3 percent per year."[17] [emphasis added]

However, this refers to increases in broadband penetration (i.e. providing broadband to consumers who would not otherwise have broadband access) whereas the 2014 Impact Study is predominately concerned with providing consumers access to higher-speed broadband (e.g. moving a customer from a 5 Mbps connection to a 100 Mbps connection). The economic bonus provided by increases in

[15] However, we do note that the 2014 Impact study used employment, output and labor income figures for the County, whereas the project in question at that time focused only on the City of Topeka.

[16] https://www.brookings.edu/wp-content/uploads/2016/06/06labor_crandall.pdf

[17] The Effects of Broadband Deployment on Output and Employment: A Cross-Sectional Analysis of U.S. Data. Robert Crandall, William Lehr and Robert Litan. Brookings Institute. 2007

broadband penetration has been noted in several studies[18,19] and could play a small role here, in that, presumably, some in the City/County may have had no broadband access in 2014 but would have access in the future. But, based on the figures provided by the author on the Baseline scenario, the 2014 Impact Study already assumes that 95% of small businesses, 100% of large businesses, 100% of home-based businesses, 90% of residents and 95% of public institutions already have broadband access. So, there appears to be little scope for meaningful increases in broadband penetration itself.

With respect to increases in broadband speeds, as distinct from increases in broadband penetration, there appears to be less conclusive research on the (presumed) resultant increase in economic growth[20]. The study most often cited on the subject noted that:

> "Doubling broadband speeds for an economy can add 0.3 percent to GDP growth"[21]

While not the business case underpinning the 2014 Impact Study, the introduction of gigabit services to certain localities has also provided some evidence of the effects of increases in broadband speed:

> "More specifically, our model suggests that for the MSAs with widely available gigabit services, the per capita GDP is approximately 1.1 percent higher than in MSAs with little to no availability of gigabit services."[22]

Please note that first figure mentioned of 0.3 percent is with respect to annual GDP growth, whereas the second figure of 1.1 percent refers not the annual growth rate but the overall per capita GDP figure for a given city, so it signals a one-time, non-reoccurring boost in GDP.

In the absence of more reliable studies, we believe that the best figure to use would be that of the Ericsson study of an increase of 0.3 percent in GDP growth for a doubling of overall broadband speeds. Therefore, if the City/County were able to double broadband speeds across the economy, over ten years, we would anticipate incremental GDP growth of just over 3%. A quadrupling of speeds would lead to approximately 6.4% of incremental GDP growth. However, there appears to be diminishing returns with further incremental increases in broadband speed[23].

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[18] One such study, often cited, is from the World Bank, which found that a 10% increase in broadband penetration in a high-income country would correspond to a 1.21 percentage point increase in the economic growth rate. Qiang, Christine Zhen-Wei and Carlo M. Rossotto, IC4D: Extending Reach and Increasing Impact, Chapter 3: Economic Impacts of Broadband, GICT Dept., World Bank. (2009).

[19] "Our analysis indicates a positive relationship between broadband expansion and economic growth. This relationship is stronger in industries that rely more on information technology..." ("Does Broadband Boost Local Economic Development?" Jed Kolko. Public Policy Institute of California. Jan 2010).

[20] One issue on this research topic is the ever-evolving definition of "broadband" and what constitutes "high-speed broadband". Each of the studies mentioned above had their own definition of the minimum speeds that qualify as "broadband" or "high-speed broadband", while the FCC has updated its own definitions over the years.

[21] Ericsson, Arthur D. Little and Chalmers University of Technology. Socioeconomic Impacts of Broadband Speed. (2013).

[22] Sosa, David. "Early Evidence Suggests Gigabit Broadband Drives GDP." Analysis Group for FTTH Council.

[23] The Ericsson study also noted a likely effective of diminishing returns: "Therefore, the study suggests there are economic benefits both in upgrading from 9 to 42 Mbps, and from 42 to 90 Mbps. However, the gain is smaller when the original speed is higher. Hence, the Copenhagen Economics study implies that the marginal effect decreases as the speed increases. This also conforms to other studies, for example, Meek et al. (2010)."

In the 2014 Impact Study, the median take rate for residents falls into the 10-to-50-Mbps category for both the Baseline Scenario and the Low scenario, rises to More-Than-50-Mbps for the Moderate scenario and More-Than-100-Mbps in the High scenario. While we cannot determine exactly the percentage increase in broadband speeds, it appears to fall somewhere between a doubling and quadrupling of broadband speeds across the economy. Therefore, we believe that the 2014 Impact Study's assumptions on the boost to the County's economy of between 5-15% is probably somewhat overstated. Instead, we would have used assumptions of between 3% and 6.4% for this figure, absent either better research findings or a clearer understanding of the actual percentage increase in broadband speeds being proposed. The revised economic impact is equivalent to an incremental $732M to $1,562M in GDP.

The remainder of the methodology and assumptions used in the 2014 Impact Study appear to be reasonable and in-line with what we would have used in our own analysis (i.e. the economic multipliers used to derive indirect and induced impacts).

Considerations for Future Analyses

Should JEDO wish to undertake a new analysis of the economic impacts of broadband investments in the context of new network buildout plans, we would submit the following recommendations:

- More clearly define the existing broadband speeds enjoyed by your residents, including the number of residents effectively without broadband.
- More clearly define the projections of future broadband speeds attainted for those same residents, so that an analyst could understand the effective percentage change in broadband speeds for the "typical" City and County resident.
- Include some understanding of the timeframe of both deployment and adoption of the new network. For example, while the network may only take a couple of years to complete, what is a reasonable assumption for the adoption rate (i.e. the rate at which residents and businesses will subscribe to the increased broadband speeds)?
- Focus on the adoption rate by speed category in lieu of simply the availability of a speed tier.

7 Conclusion

Key Observations

Our analysis at this stage of the project indicates that there is a feasible path to improved broadband throughout the City of Topeka and Shawnee County. There are a greater number of potentially attractive options within the denser parts of the County, and narrower set for the more rural parts. The validated cost for a fiber network in this study is higher than forecasted in the 2014 study, but the business case for a fiber network in Topeka is still positive in the long run under the new forecast if we assume interest rates and an investment horizon consistent with a public-sector infrastructure investment. A fiber-wireless network option in rural unserved areas of Shawnee County could be built at a substantially lower initial cost than a full FTTP build-out. Although it could likely sustain its ongoing operations, such a network would likely require support for its initial capital costs. Our review of the 2014 economic impact statement indicates that the expected economic impact would likely be less than originally forecasted, but still positive.

All of the scenarios studied here assumed that reaching all locations in the study areas was a requirement. If reaching all locations is not a requirement, it would be possible to tailor new network investment to areas that have the demonstrated demand to make a project financially self-funding. The next section discusses some methods for validating demand assumptions.

However, it is a choice, not a requirement, that all investments be self funding. Obviously, the degree to which local jurisdictions can support investments that are not self-funding even if they want to is limited by budgetary constraints. To the extent capital support is available and needed, it can be strategically targeted to achieve whichever goals that policymakers rank as most important. This could in Topeka and Shawnee County include, for example:

- Coverage in unserved rural areas
- Investments that will jump-start additional private investments in better broadband service
- Extending infrastructure into less-advantaged, lower-income neighborhoods or high-need economic development targets

If universal access to any new or improved services—either FTTP or wireless—is essential, then results of this study suggest that within many local jurisdictions within the County, a project would need to be committed to supporting less-attractive areas through one or more of a variety of mechanisms, including bundling together less and more attractive neighborhoods or communities, partial subsidies of network investments, or an ongoing funding mechanism not tied to subscription revenue. A revenue model based entirely on voluntary subscriptions will likely be adopted at a lower rate by lower income households. As noted above, it also may be uneconomic to provide a solution in more rural areas based only on voluntary subscriptions. A network connecting all premises from the start will have a higher capital cost and this higher cost may require a commitment to cost sharing across a broader base to be financially sustainable. This kind of broad-based funding commitment is represented in our analysis by the "Open Access" model. A commitment to connecting every premise will require a higher level financial commitment from the local jurisdictions, the community, and potential service provider partners.

Recommended Methods to Validate Demand Assumptions

In developing any broadband solution, it is important to bear in mind that forecasting demand in a project's early stages is an estimate, not a perfect prediction. JEDO can make reasonable assumptions regarding demand, but they remain assumptions. It is therefore important to regularly test those assumptions.

The first step is to establish a methodology to determine what demand levels the project requires. The different models presented make different assumptions about how the costs of the network will be recovered. In the version of an Open Access operating model presented in this report, the issue of "necessary" take rate has been dealt with by the assumption of a non-bypassable fee paid by all premises passed and calculated to cover the capital cost of the network and its operation. However, to the extent that cost recovery relies on voluntary subscription charges (as in the other scenarios), then the need to achieve a necessary take rate becomes paramount. And at the end of the day, for any operating model that relies both on voluntary subscriptions and public funding or financing of the network, failure to achieve necessary take rates results in the costs of the network reverting in an unplanned manner to the general taxpayers or, depending on the financing structure, possibly in default. Validating demand is therefore very important prior to committing to a project when choosing a financial model that depends upon it.

With the above in mind, there are a few ways to validate demand. These provide varying levels of certainty at varying levels of cost.

- Survey. Conducting a survey is a common way of gauging demand for a potential new broadband network. The survey should be kept brief to encourage a higher response rate. Surveys can be targeted at diverse groups of potential subscribers and can ask different questions of different groups to identify patterns within different potential segments.

  The primary disadvantage to a survey in validating demand is that it is not binding. When it comes time for people to sign up for service, they may not do so even if they had indicated an interest on a survey. Surveys can also provide biased results if not carefully constructed and distributed. Distributing a survey online, for example, may result in a higher proportion of respondents indicating interest in broadband than in the general population, for the simple reason that people who are already online will be better acquainted with the benefits of broadband than people who lack it. Finally, it may be difficult to get a statistically significant number of respondents to a survey without offering incentive for completing the survey.

- Presubscription campaign. A presubscription campaign can mitigate much of the uncertainty related to a survey. In a presubscription campaign, people are asked to make a financial commitment to subscribing ahead of time, typically in the form of a deposit. In addition, a presubscription campaign can be geographically targeted so that Shawnee County is subdivided into different areas. Once enough people commit to service in each area, the network will be built. The deposit can be applied to their bill once service starts, or refunded if the network is not built.

The main drawback to a presubscription campaign is that presubscription take rates may be lower than what a new network may ultimately achieve. If only people who are committed enough to pay a deposit sign up, there may be many others who would like to subscribe when service is available but either cannot afford the deposit or cannot otherwise commit to a presubscription campaign. Care should therefore be taken to try to account for these additional likely subscribers.

- Presubscription Process Managers. Presubscription managers offer a "one stop shop" to verify demand, sign up subscribers, and accept payment. These service providers offer a variety of integrated marketing tools that help create marketing campaigns to identify and map areas where people are interested in subscribing to a potential network. They can support on-line surveys that serve as a jumping-off point for later asking potential customers to commit to a project. Campaigns can engage the community as part of the marketing and outreach; that is, people who pre-subscribe can also use the service to refer friends and neighbors. Presubscription managers can then accept payment of any deposits or fees and keep track of payments received or owed. Finally, they generally support multiple business cases for a proposed network and can even produce high-level cost estimates or network layouts.

Next Steps

The planning process established by JEDO for this project next calls for a Request-for-Information (RFI) to potential private partners. Conducting an RFI will begin the process of moving planning in this project from hypothetical scenarios toward a concrete set of options on which JEDO and/or local jurisdictions within the City of Topeka and Shawnee County can act or not act. There are three key decisions for JEDO going into an RFI:

1. Is the scale of the capital cost estimates for any of the proposed scenarios within the range of potential feasibility to finance for JEDO and/or the local taxing jurisdictions? If not, then whatever the merits of a larger or more robust network, we may want to seek comment in an RFI on a more incremental set of options. However, if bonds or other financing mechanisms in the range contained within the options discussed may be feasible, then we can seek provider comment on potential projects commensurate with the level of commitment that local jurisdictions may be prepared to make.
2. Is the approach to a project likely to be aggregated county-wide, or simply be approached as a series of one or more local, independent, projects? The analysis from this phase of the project indicates that projects outside the City, and especially fiber projects, will have a difficult time being economically self-supporting on a stand-alone basis relying only on voluntary subscriptions.
3. Will the objective of a project be to ensure that every location in the participating local jurisdiction(s) is connected to a new broadband service or will it be limited to providing a new, improved broadband choice to at least some residents and businesses? Ensuring new services reach every location will require a greater commitment.

It is not necessary that JEDO answer all of these questions before deciding to conduct an RFI, or even that any decisions be immutably made prior to issuing the RFI. These questions may be discussed and answered preliminarily as part of the development of the RFI, and then can guide the inquiry. For example, the answers to all the above, but especially #1 and #2, will determine the degree to which

comment on a wireless option for rural Shawnee County is a focus for the RFI, including whether it is presented as a primary option or a fallback alternative.

The RFI also represents an opportunity to seek out provider feedback and gauge interest in potential operating models, to the extent that they are not eliminated by answers to the questions above:

- Interest in building a network meeting JEDO's objectives with little to no public-sector involvement. While our analysis suggests that the business case for a new, purely private FTTP network may be thin, we have prepared a generic case. Circumstances from individual providers may vary. Asking providers about what they may be able to do without City or County assistance (or help short of large infrastructure investments) is a prudent step, and provides an opportunity for input from a broad range of existing or new providers.
- Interest in using dark fiber constructed by local jurisdiction. This is the most basic and lowest level of direct infrastructure investment that entities in the City and County could make, and would require the most additional investment from private partners. JEDO should also seek information regarding the willingness to make additional private investment and build out infrastructure to provide services meeting JEDO's objectives, if dark fiber is available. Although we have modeled an extensive dark fiber build out, JEDO can also probe if a more limited dark fiber build that requires ISPs to construct a large part of the lateral connections needed to pass all premises may be sufficient to spur the needed private investment. JEDO can also seek comment on the potential interest from providers who might use a limited dark fiber network as a platform to support wireless services, either rural wireless services like the one modeled in the fixed wireless scenario, or very high speed 5G services that are emerging now and will continue to emerge over the next several years in cities across the country.
- Interest in various types of roles in a public-private partnership. For example:
    - Interest in in participating as an exclusive (or semi-exclusive) private provider/network operator on the fiber network of one or more local jurisdictions. This type of arrangement provides a commitment to a single company. The RFI can probe what categories of concessions potential partners may be willing to offer for such a commitment, which may range from taking on parts of the investment required, to construction or operating risk-sharing, service levels, and revenue sharing. It can also seek feedback on the most important commitments potential partners would seek from the local jurisdiction(s), which may include things like term commitments, minimum revenue commitments, and preferences for the mix of more desirable and less desirable areas.
    - Interest in participating as a retail provider in lit-fiber open access model. Conceptually, open-access networks provide the opportunity for consumers to reap the benefits of increased competition over a single fiber connection. However, the success of an open-access network depends in no small part on the level of participation by ISPs, who would be key stakeholders. Open access networks are not of interest to every service provider; some require exclusivity while others prefer to own and operate the local access networks on which they deliver service. The RFI can be a valuable tool to gauge the level of interest from ISPs who would consider participating under this model in this market. The RFI can also probe key requirements that participating ISPs would have for things like network interfaces, service levels, service provisioning, billing and collections.

- Interest from wireless service providers. Wireless internet service providers may have different requirements and interests for participation than providers who deliver service over fiber.
- Interest from partners who may wish to own or finance infrastructure investments. In some cases partnerships may rely on public support and assistance but utilize private capital markets in public-private partnerships similar to arrangements that have been utilized to fund other infrastructure investments, such as in transportation and utility sectors. An RFI can help to qualify potential interest in the local market, and understand what some of the essential parameters may be.

Appendix A: Camoin Economic Impact Study Attachments

A.1 What is Economic Impact Analysis?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in each economy due to some initial "change in final demand". To understand the meaning of "change in final demand", consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells $1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is $1 million because dollars are flowing in from outside the United States and are therefore "new" dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the "Direct Effects" of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer's vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will "leak out". What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of industry-to-industry purchases. Finally, the widget manufacturer has employees who will naturally spend their wages. Again, those wages spent will either be for local goods and services or will "leak" out of the economy. The purchases of local goods and services will then stimulate other local economic activity. Together, these effects are referred to as the "Indirect Effects" of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial $1 million of new money (i.e. Direct Effects) flowing in the US economy, plus the Indirect Effects. The ratio of Total Effects to Direct Effects is called the "multiplier effect" and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar ($1) of change in final demand, an additional $1.40 of indirect economic activity occurs for a total of $2.40.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e. how the "local economy" is defined) and the implications of the geography on the computation of the change in final demand. If this analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, it would have to conclude that the change in final demand is zero and therefore the economic impact is zero. This is because the $1 million of widgets being purchased by Canadians is not causing total North American demand to increase by $1 million. Presumably, those Canadian purchasers will have $1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in many circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being

imported into the US from Korea and Japan), locating a manufacturer of DVD players in the US will cause a change in final demand because all those dollars currently leaving the US economy will instead remain. A situation can be envisioned whereby a producer is serving both local and foreign demand, and an impact analysis would have to be careful in calculating how many "new" dollars the producer would be causing to occur domestically.

A.2 Author's Response

The text, below, is from an email from Bill Gillis to Mike Wilson of CostQuest on Oct 31, 2017.

"Mike,

To understand the percentage growth impact assumption for the three scenarios, we need to consider the full set of assumptions for each scenario.

The Baseline Scenario for Shawnee County Assumes

1. The Shawnee County economy grows at approximately the same average rate as the NE Kansas projected annual growth rate for the next 10 years;
2. Broadband availability and use in Shawnee County over the next ten years will be typical of what is expected for NE Kansas without any proactive efforts to accelerate local broadband investment and usage.
3. Broadband Take Rate by Download Speed (assumed percentage of businesses accessing broadband at each speed tier) for the Baseline Scenario is as follows:

Broadband Take Rate by Bandwidth Speed Assumption by the Year 2020
(only download speeds are represented)

	3 to 10 Mbps	10 to 50 Mbps	> 50 Mbps	> 100 Mbps
Small Business	20%	50%	25%	0%
Large Business	0%	15%	60%	25%
Home-Based Business	30%	50%	20%	0%
Residents	40%	40%	10%	0%
Public Institutions	0%	20%	40%	35%

The Low Impact Scenario for Shawnee County Assumes

1. The Shawnee County economy grows 5% faster than the ten-year economic growth by sector project for Northeast Kansas.
2. Private providers will differentiate broadband availability and use in Shawnee County from competing areas as a result of proactive local efforts and expanded investment.
3. Broadband Take Rate by Download Speed (assumed percentage of businesses accessing broadband at each speed tier) for the Low Impact Scenario is as follows:

Broadband Take Rate by Bandwidth Speed Assumption by the Year 2020
(only download speeds are represented)

	3 to 10 Mbps	10 to 50 Mbps	> 50 Mbps	> 100 Mbps
Small Business	10%	30%	35%	20%
Large Business	0%	10%	40%	50%
Home-Based Business	10%	30%	35%	20%
Residents	25%	25%	25%	20%
Public Institutions	0%	0%	50%	50%

In particular, note the customer broadband take rate increases with scenarios that assume a higher local growth result. I am pretty sure we got the baseline take rates from your models. The scenario rates are loosely calibrated with the Brookings Study (with some nuances that reflect take rate by product category) that was utilized widely at that time by Connected Nations and others. There was no attempt to use the Brookings growth coefficients as a fixed relationship as that would not have been appropriate.

The Effects of Broadband Deployment on Output and Employment: A Cross-Sectional Analysis of U.S. Data (Robert Crandall, William Lehr and Robert Litan, 2007)

https://www.brookings.edu/wp-content/uploads/2016/06/06labor_crandall.pdf

"We find that nonfarm private employment and employment in several industries is positively associated with broadband use. More specifically, for every one percentage point increase in broadband penetration in a state, employment is projected to increase by 0.2 to 0.3 percent per year."

Specifically, the Brookings study puts forward that the percent local economic growth is tied to broadband penetration. With their coefficients, a very modest increase in broadband penetration would quickly produce a 5% added economic growth over 10 years. While there are lots of reasons, to not use their coefficients, directly, for a local region analysis, the general principle developed in the Brookings Study that economic growth is directly related to broadband penetration is reflected by several additional studies referenced in the bibliography at the end of the Shawnee County Impact Study.

Some things to keep in mind. The context of our impact study in Kansas was the deployment of a Gigabit network. And at that time, such networks were still not universal, and rarer than today. So, to some extent, the higher scenarios are justified by a "first mover" advantage. A local area with effective interventions that aggressively deploy the Gigabit networks, and effectively build the demand side including attracting / developing new information technology related businesses that need that capacity are going to have a first mover advantage over other cities that are more passive. Consequently, a 15% growth adder high scenario at the time did not seem unrealistic. Now that all fiber networks (and advance wireless options), at least for business customers, are becoming much more common, the first mover advantage may possibly be disappearing. When we did this study, cities committed to both building out their broadband infrastructure and the supportive capacity that accommodates location of information technology businesses was not widespread. Such communities truly could at that time claim a competitive economic development advantage. Have not looked at this recently, so may not be true if we were to repeat the analysis today. Different assumptions might be needed. Side note, the game for cities today should be on the demand side where they can differentiate themselves to business and institutional users. In the end, the basic relationship between penetration and impact is still sound.

The problem for all economists who do projections, the forecast of the future can be verified by actual results that occur. However, there should be some real data soon for the first mover cities to see what the impact on growth from Gigabit networks actually were."

Appendix B: Glossary

Term	*Definition*
Broadband	The provision of high-speed, always-on (as opposed to dial-up), internet access service. While there is no single definition of speeds required for a service to be considered broadband, the Federal Communications Commission defines broadband as a minimum of 25 Mbps download and 3 Mbps upload.
Digital Subscriber Line (DSL)	A family of technologies for providing broadband service over traditional copper phone lines. While a proven technology, DSL has significant technical limitations that drive up the cost of deploying higher-speed DSL networks, the chief of which is that the highest possible speed is only available within a few hundred feet of the DSL head-end equipment. Within that distance, modern DSL networks can achieve speeds of hundreds of megabits per second, albeit at significant cost. Available speeds drop off rapidly as distance from the head end equipment increases. DSL service is generally not available more than 3 miles from the head end equipment.
Dark Fiber	Otherwise unused fiber optic cable strands that are often made available for lease to interested parties. Companies that lay fiber optic cable often provide more than their current needs justify, and it is common for them to lease extra strands.
Fiber-to-the-Premise (FTTP)	A type of broadband network that delivers service to homes and business entirely over fiber optic cables. The current widely-deployed standard provides service at a range of speeds up to and including 1 Gbps.
Fixed Wireless	A type of broadband network that provides service via radio waves. Locations to be served usually have an antenna installed outside, pointing towards a central radio transmitting station. Fixed wireless networks typically provide between 1 Mbps and 50 Mbps to each user, but this is highly dependent on the specific network and ISP.
Fiber-Wireless Network	A broadband network that uses high-capacity fiber optic cables to “backhaul” nodes that distribute broadband via wireless signals to homes and businesses
Gigabit Network	Network having the ability to transfer data at 1 billion bits of information per second; the highest speed levels generally available to consumers today
Gigabit Cities Model (GBCM)	A network and financial modeling tool developed by CostQuest Associates to study the cost and business case for FTTP networks in a variety of communities; used in this study and the 2014 Study
Internet Service Provider (ISP)	An organization that provides a service allowing people or businesses to access the Internet. ISPs can take a variety of forms, including for-profit companies, co-ops, a subsidiary of a municipal utility, or others.
Lit Fiber	Fiber optic strands that are in active use. Can also refer to the service provided via that fiber.
Net Present Value	The difference between cash inflows and outflows over a period of time, where all cash flows are first converted to present dollar figure according to the time value of money principle

OLT and ONT	The Optical Line Termination (OLT) and Optical Network Terminal (ONT) are the electronic equipment that light fiber in FTTP applications. The OLT is at the ISP's head end, while each customer premise has an ONT.
Open Access	A type of network where any qualified entity is permitted to provide service over the network
Success-based capital	Network construction and buildout costs whose magnitude depends on the number of customers signed up for service
Spectrum	A limited natural resource consisting of available radio frequencies. Spectrum suitable for broadband deployment exists in multiple frequency bands in the microwave range, generally above 2 GHz.
Take Rate	The percentage of people who subscribe to service vs the total number of people who could subscribe
Time Value of Money	A core principle of finance that holds a dollar received today has more intrinsic value than a dollar received tomorrow, because today's dollar can be invested to become worth more than one dollar in the future
VoIP / CVoIP	Voice over Internet Protocol is a method of providing standard telephone service over an IP network. Sound is converted to a digital stream, separated into packets suitable for the Internet Protocol, and sent over the Internet or a provider's network. Carrier VoIP is VoIP technology designed with high levels of redundancy and reliability, suitable for providing telephony service to others, typically with only up to a few minutes of downtime in a given year.

Appendix C: Scenario 30-year Business Cases

The tables contained within this section are outputs of the Gigabit Cities Model for the scenarios described within the report, presented over a 30-year period. The section headings refer to the GBCM scenario short name as identified in Table 6 within Section 4, plus the Rural Wireless scenario described in Section 5 of the report.

C.1 Scenarios within City of Topeka

C.1.1 Retail No Structure

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	4,359	11,331	14,700	15,943
			Bus	-	688	2,408	3,669	4,013
			Total	-	5,047	13,738	18,369	19,955
	Data High							
		Average	Res	-	3,742	9,726	12,617	13,684
			Bus	-	619	2,167	3,302	3,611
			Total	-	4,361	11,892	15,919	17,295
	Data Low							
		Average	Res	-	618	1,605	2,083	2,259
			Bus	-	69	241	367	401
			Total	-	686	1,846	2,450	2,660
	Voice							
		Average	Res	-	1,526	3,966	5,145	5,580
			Bus	-	241	843	1,284	1,404
			Total	-	1,767	4,808	6,429	6,984

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	70	70	70	70
			Bus	-	100	100	100	100
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Voice							
		Voice	Res	-	20	20	20	20
			Bus	-	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	16,933	17,943	19,248	20,129	20,212
			Bus	4,242	4,471	4,586	4,586	4,586
			Total	21,175	22,414	23,834	24,715	24,797
	Data High							
		Average	Res	14,535	15,401	16,516	17,259	17,321
			Bus	3,818	4,024	4,127	4,127	4,127
			Total	18,352	19,425	20,643	21,387	21,448
	Data Low							
		Average	Res	2,398	2,543	2,732	2,870	2,890
			Bus	424	447	459	459	459
			Total	2,822	2,990	3,191	3,328	3,349
	Voice							
		Average	Res	5,926	6,280	6,737	7,045	7,074
			Bus	1,485	1,565	1,605	1,605	1,605
			Total	7,411	7,845	8,342	8,650	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND				
Unit	**Product**	**Measure**	**Res/Bus/Total**	**Year 30**
Demand	**Total Customers**			
		Average	Res	20,212
			Bus	4,586
			Total	24,797
	Data High			
		Average	Res	17,321
			Bus	4,127
			Total	21,448
	Data Low			
		Average	Res	2,890
			Bus	459
			Total	3,349
	Voice			
		Average	Res	7,074
			Bus	1,605
			Total	8,679

ARPU				
Unit	**Product**	**Measure**	**Res/Bus/Total**	**Year 30**
ARPU	**Data High**			
		Data High	Res	70
			Bus	100
		NRC	Res	150
			Bus	150
	Data Low			
		Data Low	Res	-
			Bus	-
		NRC	Res	150
			Bus	150
	Voice			
		Voice	Res	20
			Bus	20
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High						
		Subscription	-	3,886,118	10,769,660	14,560,334	15,828,183
		NRC	-	1,314,844	968,953	280,650	182,176
	Data Low						
		Subscription	-	-	-	-	-
		NRC	-	206,934	144,663	43,070	27,563
	Voice						
		Subscription	-	423,978	1,153,999	1,542,968	1,676,240
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	5,218	14,201	18,988	20,628
	Customer Acquisition						
		Data High	-	438,281	322,984	93,550	60,725
		Data Low	-	13,796	9,644	2,871	1,838
		TOTAL	-	452,077	332,628	96,421	62,563
	Service Install		-	760,889	556,808	161,860	104,870
	Customer Operations, Advertising, G&A		-	2,868,707	4,216,889	4,858,523	5,106,280
	Network operating expenses		-	3,810,333	4,341,315	4,495,447	4,595,124
	TOTAL		**-**	**7,897,224**	**9,461,842**	**9,631,240**	**9,889,464**
EBITDA			**-**	**(2,065,350)**	**3,575,432**	**6,795,781**	**7,824,698**
Tax Depreciation			-	6,555,723	12,502,128	11,214,975	9,406,324
EBIT			**-**	**(8,621,073)**	**(8,926,696)**	**(4,419,194)**	**(1,581,627)**
Interest			-	899,289	946,597	829,061	721,000
Income			**-**	**(9,520,362)**	**(9,873,292)**	**(5,248,255)**	**(2,302,627)**
Tax			-	(2,589,538)	(2,685,536)	(1,427,525)	(626,315)
Net Income			**-**	**(6,930,823)**	**(7,187,757)**	**(3,820,730)**	**(1,676,313)**

Unit	Item	Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment	52,445,782	-	-	-	-
	Success Based	-	12,339,860	9,028,079	2,620,652	1,694,761
	Network Capital Replacment	-	617,166	968,244	1,333,432	1,661,250
	TOTAL	**52,445,782**	**12,957,026**	**9,996,323**	**3,954,084**	**3,356,011**
Free Cash Flow	Raw	(52,445,782)	(12,432,837)	(3,735,355)	4,269,223	5,095,001
	PV	(52,445,782)	(11,915,333)	(3,288,059)	3,451,663	3,783,517
Bond Amortization	Balance		64,785,642	64,785,642	64,785,642	64,785,642
	Principal		-	-	-	2,733,858
	Interest		2,591,426	2,591,426	2,591,426	2,591,426
	Payment		2,591,426	2,591,426	2,591,426	5,325,284

Financials

Unit	Product	Measure	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High						
		Subscription	16,790,342	17,765,465	18,825,888	19,450,603	19,502,457
		NRC	188,392	190,000	235,558	50,599	32,173
	Data Low						
		Subscription	-	-	-	-	-
		NRC	29,350	29,601	39,947	11,166	5,023
	Voice						
		Subscription	1,778,660	1,882,809	2,002,015	2,076,060	2,082,974
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		21,889	23,170	24,637	25,548	25,634
	Customer Acquisition						
		Data High	62,797	63,333	78,519	16,866	10,724
		Data Low	1,957	1,973	2,663	744	335
		TOTAL	64,754	65,307	81,182	17,611	11,059
	Service Install		108,871	109,801	137,752	30,882	18,598
	Customer Operations, Advertising, G&A		5,312,639	5,521,906	5,768,265	5,890,004	5,908,759
	Network operating expenses		4,698,519	4,802,695	4,933,412	4,962,075	4,977,154
	TOTAL		**10,206,671**	**10,522,879**	**10,945,250**	**10,926,121**	**10,941,203**
EBITDA			**8,580,073**	**9,344,996**	**10,158,157**	**10,662,307**	**10,681,423**
Tax Depreciation			8,710,257	7,013,255	5,379,769	5,191,355	5,140,041
EBIT			**(130,185)**	**2,331,741**	**4,778,388**	**5,470,952**	**5,541,383**
Interest			643,165	579,592	550,009	523,415	500,157
Income			**(773,350)**	**1,752,149**	**4,228,379**	**4,947,537**	**5,041,226**
Tax			(210,351)	476,585	1,150,119	1,345,730	1,371,213
Net Income			**(562,999)**	**1,275,565**	**3,078,260**	**3,601,807**	**3,670,013**

Unit	Item	Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment	-	-	-	-	-
	Success Based	1,757,993	1,771,259	2,222,540	487,337	256,386
	Network Capital Replacment	1,987,582	2,315,490	2,639,196	2,958,329	3,243,484
	TOTAL	**3,745,575**	**4,086,749**	**4,861,735**	**3,445,667**	**3,499,870**
Free Cash Flow	Raw	5,044,849	4,781,663	4,146,303	5,870,910	5,810,339
	PV	3,440,895	2,995,533	2,385,767	3,102,731	2,820,409
Bond Amortization	Balance	62,051,784	59,208,571	56,251,630	53,176,411	49,978,184
	Principal	2,843,213	2,956,941	3,075,219	3,198,228	3,326,157
	Interest	2,482,071	2,368,343	2,250,065	2,127,056	1,999,127
	Payment	5,325,284	5,325,284	5,325,284	5,325,284	5,325,284

Financials

Unit	Product	Measure	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High						
		Subscription	19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC	32,173	32,173	32,173	32,173	32,173
	Data Low						
		Subscription	-	-	-	-	-
		NRC	5,023	5,023	5,023	5,023	5,023
	Voice						
		Subscription	2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		25,634	25,634	25,634	25,634	25,634
	Customer Acquisition						
		Data High	10,724	10,724	10,724	10,724	10,724
		Data Low	335	335	335	335	335
		TOTAL	11,059	11,059	11,059	11,059	11,059
	Service Install		18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A		5,919,324	5,929,890	5,940,456	5,951,022	5,961,588
	Network operating expenses		4,994,894	5,012,635	5,030,375	5,048,115	5,065,856
	TOTAL		**10,969,510**	**10,997,816**	**11,026,122**	**11,054,428**	**11,082,734**
EBITDA			**10,653,117**	**10,624,811**	**10,596,505**	**10,568,199**	**10,539,893**
Tax Depreciation			5,108,052	5,191,392	5,354,095	5,508,701	5,692,260
EBIT			**5,545,065**	**5,433,419**	**5,242,410**	**5,059,498**	**4,847,633**
Interest			481,761	466,927	453,602	440,206	426,355
Income			**5,063,304**	**4,966,493**	**4,788,808**	**4,619,292**	**4,421,277**
Tax			1,377,219	1,350,886	1,302,556	1,256,447	1,202,587
Net Income			**3,686,085**	**3,615,607**	**3,486,252**	**3,362,844**	**3,218,690**

Unit	Item	Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment	-	-	-	-	-
	Success Based	301,631	301,631	301,631	301,631	301,631
	Network Capital Replacment	3,500,572	3,727,527	3,920,693	4,078,191	4,199,761
	TOTAL	**3,802,203**	**4,029,158**	**4,222,324**	**4,379,822**	**4,501,392**
Free Cash Flow	Raw	5,473,695	5,244,767	5,071,625	4,931,929	4,835,913
	PV	2,440,411	2,147,734	1,907,538	1,703,785	1,534,434
Bond Amortization	Balance	46,652,027	43,192,824	39,595,253	35,853,779	31,962,646
	Principal	3,459,203	3,597,571	3,741,474	3,891,133	4,046,778
	Interest	1,866,081	1,727,713	1,583,810	1,434,151	1,278,506
	Payment	5,325,284	5,325,284	5,325,284	5,325,284	5,325,284

Financials

Unit	Product	Measure	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High						
		Subscription	19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC	32,173	32,173	32,173	32,173	32,173
	Data Low						
		Subscription	-	-	-	-	-
		NRC	5,023	5,023	5,023	5,023	5,023
	Voice						
		Subscription	2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		25,634	25,634	25,634	25,634	25,634
	Customer Acquisition						
		Data High	10,724	10,724	10,724	10,724	10,724
		Data Low	335	335	335	335	335
		TOTAL	11,059	11,059	11,059	11,059	11,059
	Service Install		18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A		5,972,154	5,982,720	5,993,286	6,003,851	6,014,417
	Network operating expenses		5,083,596	5,101,336	5,119,076	5,136,817	5,154,557
	TOTAL		**11,111,040**	**11,139,346**	**11,167,653**	**11,195,959**	**11,224,265**
EBITDA			**10,511,586**	**10,483,280**	**10,454,974**	**10,426,668**	**10,398,362**
Tax Depreciation			5,921,523	5,372,086	4,604,020	4,449,117	4,373,292
EBIT			**4,590,063**	**5,111,194**	**5,850,954**	**5,977,551**	**6,025,070**
Interest			411,178	393,615	384,004	385,063	388,112
Income			**4,178,885**	**4,717,579**	**5,466,949**	**5,592,487**	**5,636,958**
Tax			1,136,657	1,283,182	1,487,010	1,521,157	1,533,253
Net Income			**3,042,228**	**3,434,398**	**3,979,939**	**4,071,331**	**4,103,705**

Unit	Item	Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment	-	-	-	-	-
	Success Based	301,631	301,631	301,631	301,631	301,631
	Network Capital Replacment	4,286,847	4,342,561	4,371,497	4,379,403	4,369,189
	TOTAL	**4,588,478**	**4,644,192**	**4,673,128**	**4,681,034**	**4,670,820**
Free Cash Flow	Raw	4,786,452	4,555,907	4,294,836	4,224,477	4,194,289
	PV	1,394,939	1,219,518	1,055,922	953,960	869,936
Bond Amortization	Balance	27,915,868	23,707,218	19,330,223	14,778,148	10,043,990
	Principal	4,208,649	4,376,995	4,552,075	4,734,158	4,923,524
	Interest	1,116,635	948,289	773,209	591,126	401,760
	Payment	5,325,284	5,325,284	5,325,284	5,325,284	5,325,284

Financials

Unit	Product	Measure	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High						
		Subscription	19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC	32,173	32,173	32,173	32,173	32,173
	Data Low						
		Subscription	-	-	-	-	-
		NRC	5,023	5,023	5,023	5,023	5,023
	Voice						
		Subscription	2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		25,634	25,634	25,634	25,634	25,634
	Customer Acquisition						
		Data High	10,724	10,724	10,724	10,724	10,724
		Data Low	335	335	335	335	335
		TOTAL	11,059	11,059	11,059	11,059	11,059
	Service Install		18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A		6,024,983	6,035,549	6,046,115	6,056,681	6,067,247
	Network operating expenses		5,172,297	5,190,037	5,207,778	5,225,518	5,243,258
	TOTAL		**11,252,571**	**11,280,877**	**11,309,183**	**11,337,489**	**11,365,796**
EBITDA			**10,370,056**	**10,341,750**	**10,313,443**	**10,285,137**	**10,256,831**
Tax Depreciation			4,394,797	4,453,788	4,486,438	4,486,674	4,503,661
EBIT			**5,975,258**	**5,887,962**	**5,827,005**	**5,798,463**	**5,753,170**
Interest			391,986	395,324	397,664	399,477	401,354
Income			**5,583,273**	**5,492,637**	**5,429,341**	**5,398,987**	**5,351,816**
Tax			1,518,650	1,493,997	1,476,781	1,468,524	1,455,694
Net Income			**4,064,622**	**3,998,640**	**3,952,560**	**3,930,462**	**3,896,122**

Unit	Item	Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment	-	-	-	-	-
	Success Based	301,631	301,631	301,631	301,631	301,631
	Network Capital Replacment	4,353,415	4,335,975	4,322,317	4,316,627	4,321,594
	TOTAL	**4,655,046**	**4,637,606**	**4,623,948**	**4,618,259**	**4,623,225**
Free Cash Flow	Raw	4,196,360	4,210,146	4,212,715	4,198,354	4,177,912
	PV	799,417	736,664	677,028	619,720	566,431
Bond Amortization	Balance	5,120,465	-	-	-	-
	Principal	5,120,465	-	-	-	-
	Interest	204,819	-	-	-	-
	Payment	5,325,284	-	-	-	-

Financials

Unit	Product	Measure	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High						
		Subscription	19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC	32,173	32,173	32,173	32,173	32,173
	Data Low						
		Subscription	-	-	-	-	-
		NRC	5,023	5,023	5,023	5,023	5,023
	Voice						
		Subscription	2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		25,634	25,634	25,634	25,634	25,634
	Customer Acquisition						
		Data High	10,724	10,724	10,724	10,724	10,724
		Data Low	335	335	335	335	335
		TOTAL	11,059	11,059	11,059	11,059	11,059
	Service Install		18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A		6,077,813	6,088,378	6,098,944	6,109,510	6,120,076
	Network operating expenses		5,260,999	5,278,739	5,296,479	5,314,219	5,331,960
	TOTAL		**11,394,102**	**11,422,408**	**11,450,714**	**11,479,020**	**11,507,326**
EBITDA			**10,228,525**	**10,200,219**	**10,171,913**	**10,143,606**	**10,115,300**
Tax Depreciation			4,542,305	4,570,892	4,597,547	4,624,750	4,653,528
EBIT			**5,686,219**	**5,629,327**	**5,574,365**	**5,518,857**	**5,461,772**
Interest			403,228	404,959	406,820	408,943	411,386
Income			**5,282,991**	**5,224,368**	**5,167,545**	**5,109,914**	**5,050,386**
Tax			1,436,974	1,421,028	1,405,572	1,389,897	1,373,705
Net Income			**3,846,017**	**3,803,340**	**3,761,973**	**3,720,017**	**3,676,681**

Unit	Item	Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment	-	-	-	-	-
	Success Based	301,631	301,631	301,631	301,631	301,631
	Network Capital Replacment	4,338,335	4,366,517	4,404,620	4,450,306	4,500,822
	TOTAL	**4,639,966**	**4,668,148**	**4,706,251**	**4,751,937**	**4,802,453**
Free Cash Flow	Raw	4,151,585	4,111,042	4,060,089	4,001,773	3,939,142
	PV	516,980	470,201	426,520	386,125	349,099
Bond Amortization	Balance	-	-	-	-	-
	Principal	-	-	-	-	-
	Interest	-	-	-	-	-
	Payment	-	-	-	-	-

Financials				
Unit	**Product**	**Measure**		**Year 30**
Revenues	**Data High**			
		Subscription		19,502,457
		NRC		32,173
	Data Low			
		Subscription		-
		NRC		5,023
	Voice			
		Subscription		2,082,974
		NRC		-
Operational Costs	Voice expenses			25,634
	Customer Acquisition			
		Data High		10,724
		Data Low		335
		TOTAL		11,059
	Service Install			18,598
	Customer Operations, Advertising, G&A			6,130,642
	Network operating expenses			5,349,700
	TOTAL			**11,535,633**
EBITDA				**10,086,994**
Tax Depreciation				4,684,426
EBIT				**5,402,568**
Interest				414,157
Income				**4,988,411**
Tax				1,356,848
Net Income				**3,631,563**

Unit	**Item**			**Year 30**
Capital	Initial Deployment			-
	Success Based			301,631
	Network Capital Replacment			4,553,378
	TOTAL			**4,855,009**
Free Cash Flow	Raw			3,875,137
	PV			315,432
Bond Amortization	Balance			-
	Principal			-
	Interest			-
	Payment			-

C.1.2 Retail With Structure

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	4,359	11,331	14,700	15,943
			Bus	-	688	2,408	3,669	4,013
			Total	-	5,047	13,738	18,369	19,955
	Data High							
		Average	Res	-	3,742	9,726	12,617	13,684
			Bus	-	619	2,167	3,302	3,611
			Total	-	4,361	11,892	15,919	17,295
	Data Low							
		Average	Res	-	618	1,605	2,083	2,259
			Bus	-	69	241	367	401
			Total	-	686	1,846	2,450	2,660
	Voice							
		Average	Res	-	1,526	3,966	5,145	5,580
			Bus	-	241	843	1,284	1,404
			Total	-	1,767	4,808	6,429	6,984

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	70	70	70	70
			Bus	-	100	100	100	100
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Voice							
		Voice	Res	-	20	20	20	20
			Bus	-	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	16,933	17,943	19,248	20,129	20,212
			Bus	4,242	4,471	4,586	4,586	4,586
			Total	21,175	22,414	23,834	24,715	24,797
	Data High							
		Average	Res	14,535	15,401	16,516	17,259	17,321
			Bus	3,818	4,024	4,127	4,127	4,127
			Total	18,352	19,425	20,643	21,387	21,448
	Data Low							
		Average	Res	2,398	2,543	2,732	2,870	2,890
			Bus	424	447	459	459	459
			Total	2,822	2,990	3,191	3,328	3,349
	Voice							
		Average	Res	5,926	6,280	6,737	7,045	7,074
			Bus	1,485	1,565	1,605	1,605	1,605
			Total	7,411	7,845	8,342	8,650	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	20,212	20,212	20,212	20,212	20,212
			Bus	4,586	4,586	4,586	4,586	4,586
			Total	24,797	24,797	24,797	24,797	24,797
	Data High							
		Average	Res	17,321	17,321	17,321	17,321	17,321
			Bus	4,127	4,127	4,127	4,127	4,127
			Total	21,448	21,448	21,448	21,448	21,448
	Data Low							
		Average	Res	2,890	2,890	2,890	2,890	2,890
			Bus	459	459	459	459	459
			Total	3,349	3,349	3,349	3,349	3,349
	Voice							
		Average	Res	7,074	7,074	7,074	7,074	7,074
			Bus	1,605	1,605	1,605	1,605	1,605
			Total	8,679	8,679	8,679	8,679	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	20,212
			Bus	4,586
			Total	24,797
	Data High			
		Average	Res	17,321
			Bus	4,127
			Total	21,448
	Data Low			
		Average	Res	2,890
			Bus	459
			Total	3,349
	Voice			
		Average	Res	7,074
			Bus	1,605
			Total	8,679

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	70
			Bus	100
		NRC	Res	150
			Bus	150
	Data Low			
		Data Low	Res	-
			Bus	-
		NRC	Res	150
			Bus	150
	Voice			
		Voice	Res	20
			Bus	20
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High							
		Subscription		-	3,886,118	10,769,660	14,560,334	15,828,183
		NRC		-	1,314,844	968,953	280,650	182,176
	Data Low							
		Subscription		-	-	-	-	-
		NRC		-	206,934	144,663	43,070	27,563
	Voice							
		Subscription		-	423,978	1,153,999	1,542,968	1,676,240
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	5,218	14,201	18,988	20,628
	Customer Acquisition							
		Data High		-	438,281	322,984	93,550	60,725
		Data Low		-	13,796	9,644	2,871	1,838
		TOTAL		-	452,077	332,628	96,421	62,563
	Service Install			-	760,889	556,808	161,860	104,870
	Customer Operations, Advertising, G&A			-	2,879,207	4,243,664	4,890,023	5,140,834
	Network operating expenses			-	3,825,215	4,383,122	4,545,070	4,649,801
	TOTAL			**-**	**7,922,606**	**9,530,424**	**9,712,362**	**9,978,696**
EBITDA				-	(2,090,732)	3,506,850	6,714,659	7,735,466
Tax Depreciation				-	6,513,812	12,511,444	11,357,761	9,576,496
EBIT				-	(8,604,545)	(9,004,594)	(4,643,102)	(1,841,030)
Interest				-	2,603,416	2,603,416	2,603,416	2,603,416
Income				-	(11,207,961)	(11,608,010)	(7,246,518)	(4,444,446)
Tax				-	(134,496)	(139,296)	(86,958)	(53,333)
Net Income				-	(11,073,465)	(11,468,714)	(7,159,560)	(4,391,113)

Unit	Item			Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment			52,110,499	-	-	-	-
	Success Based			-	12,974,906	9,492,691	2,755,518	1,781,979
	Network Capital Replacment			-	613,220	970,455	1,342,258	1,674,680
	TOTAL			**52,110,499**	**13,588,127**	**10,463,146**	**4,097,776**	**3,456,659**
Free Cash Flow	Raw			-	(5,172,873)	(9,420,416)	100,425	(1,017,784)
	PV			-	(5,072,420)	(8,882,191)	91,045	(887,235)
Bond Amortization	Balance				65,085,405	65,085,405	65,085,405	65,085,405
	Principal				-	-	-	2,746,508
	Interest				2,603,416	2,603,416	2,603,416	2,603,416
	Payment				2,603,416	2,603,416	2,603,416	5,349,924

Financials

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High							
		Subscription		16,790,342	17,765,465	18,825,888	19,450,603	19,502,457
		NRC		188,392	190,000	235,558	50,599	32,173
	Data Low							
		Subscription		-	-	-	-	-
		NRC		29,350	29,601	39,947	11,166	5,023
	Voice							
		Subscription		1,778,660	1,882,809	2,002,015	2,076,060	2,082,974
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			21,889	23,170	24,637	25,548	25,634
	Customer Acquisition							
		Data High		62,797	63,333	78,519	16,866	10,724
		Data Low		1,957	1,973	2,663	744	335
		TOTAL		64,754	65,307	81,182	17,611	11,059
	Service Install			108,871	109,801	137,752	30,882	18,598
	Customer Operations, Advertising, G&A			5,350,363	5,562,823	5,813,189	5,935,806	5,955,023
	Network operating expenses			4,758,439	4,867,897	5,005,243	5,035,359	5,051,203
	TOTAL			**10,304,315**	**10,628,998**	**11,062,004**	**11,045,207**	**11,061,517**
EBITDA				**8,482,429**	**9,238,877**	**10,041,403**	**10,543,220**	**10,561,110**
Tax Depreciation				8,847,145	7,150,626	5,515,362	5,307,639	5,243,818
EBIT				**(364,716)**	**2,088,251**	**4,526,041**	**5,235,582**	**5,317,292**
Interest				2,493,556	2,379,301	2,260,476	2,136,898	2,008,377
Income				**(2,858,272)**	**(291,050)**	**2,265,565**	**3,098,683**	**3,308,914**
Tax				(34,299)	(3,493)	27,187	37,184	39,707
Net Income				**(2,823,973)**	**(287,557)**	**2,238,378**	**3,061,499**	**3,269,207**

Unit	Item			Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment			-	-	-	-	-
	Success Based			1,848,465	1,862,413	2,336,918	512,417	269,581
	Network Capital Replacment			2,005,657	2,338,630	2,667,748	2,992,848	3,283,218
	TOTAL			**3,854,122**	**4,201,043**	**5,004,666**	**3,505,265**	**3,552,799**
Free Cash Flow	Raw			(687,318)	(308,597)	(340,374)	1,650,847	1,618,680
	PV			(576,113)	(248,719)	(263,778)	1,230,147	1,159,786
Bond Amortization	Balance			62,338,897	59,482,529	56,511,906	53,422,458	50,209,432
	Principal			2,856,368	2,970,623	3,089,448	3,213,026	3,341,547
	Interest			2,493,556	2,379,301	2,260,476	2,136,898	2,008,377
	Payment			5,349,924	5,349,924	5,349,924	5,349,924	5,349,924

Financials

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High							
		Subscription		19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC		32,173	32,173	32,173	32,173	32,173
	Data Low							
		Subscription		-	-	-	-	-
		NRC		5,023	5,023	5,023	5,023	5,023
	Voice							
		Subscription		2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			25,634	25,634	25,634	25,634	25,634
	Customer Acquisition							
		Data High		10,724	10,724	10,724	10,724	10,724
		Data Low		335	335	335	335	335
		TOTAL		11,059	11,059	11,059	11,059	11,059
	Service Install			18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A			5,966,132	5,977,242	5,988,352	5,999,461	6,010,571
	Network operating expenses			5,069,843	5,088,483	5,107,123	5,125,763	5,144,402
	TOTAL			**11,091,266**	**11,121,016**	**11,150,765**	**11,180,515**	**11,210,264**
EBITDA				**10,531,361**	**10,501,611**	**10,471,862**	**10,442,112**	**10,412,363**
Tax Depreciation				5,200,665	5,278,668	5,440,758	5,594,649	5,779,555
EBIT				**5,330,695**	**5,222,943**	**5,031,103**	**4,847,463**	**4,632,807**
Interest				1,874,715	1,735,707	1,591,138	1,440,787	1,284,421
Income				**3,455,980**	**3,487,236**	**3,439,965**	**3,406,676**	**3,348,386**
Tax				41,472	41,847	41,280	40,880	40,181
Net Income				**3,414,508**	**3,445,389**	**3,398,685**	**3,365,796**	**3,308,205**

Unit	Item			Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment			-	-	-	-	-
	Success Based			317,154	317,154	317,154	317,154	317,154
	Network Capital Replacment			3,545,254	3,776,924	3,974,468	4,135,935	4,261,004
	TOTAL			**3,862,408**	**4,094,078**	**4,291,622**	**4,453,089**	**4,578,158**
Free Cash Flow	Raw			1,277,556	1,015,762	789,036	598,219	444,100
	PV			880,163	672,887	502,589	366,390	261,535
Bond Amortization	Balance			46,867,885	43,392,677	39,778,460	36,019,674	32,110,537
	Principal			3,475,209	3,614,217	3,758,786	3,909,137	4,065,503
	Interest			1,874,715	1,735,707	1,591,138	1,440,787	1,284,421
	Payment			5,349,924	5,349,924	5,349,924	5,349,924	5,349,924

Financials

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High							
		Subscription		19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC		32,173	32,173	32,173	32,173	32,173
	Data Low							
		Subscription		-	-	-	-	-
		NRC		5,023	5,023	5,023	5,023	5,023
	Voice							
		Subscription		2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			25,634	25,634	25,634	25,634	25,634
	Customer Acquisition							
		Data High		10,724	10,724	10,724	10,724	10,724
		Data Low		335	335	335	335	335
		TOTAL		11,059	11,059	11,059	11,059	11,059
	Service Install			18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A			6,021,681	6,032,790	6,043,900	6,055,009	6,066,119
	Network operating expenses			5,163,042	5,181,682	5,200,322	5,218,962	5,237,602
	TOTAL			**11,240,013**	**11,269,763**	**11,299,512**	**11,329,262**	**11,359,011**
EBITDA				**10,382,613**	**10,352,864**	**10,323,114**	**10,293,365**	**10,263,615**
Tax Depreciation				6,013,168	5,473,149	4,705,073	4,538,014	4,455,037
EBIT				**4,369,445**	**4,879,715**	**5,618,042**	**5,755,351**	**5,808,578**
Interest				1,121,801	952,676	776,787	593,861	403,619
Income				**3,247,644**	**3,927,039**	**4,841,255**	**5,161,490**	**5,404,960**
Tax				38,972	47,124	58,095	61,938	64,860
Net Income				**3,208,672**	**3,879,914**	**4,783,160**	**5,099,552**	**5,340,100**

Unit	Item			Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment			-	-	-	-	-
	Success Based			317,154	317,154	317,154	317,154	317,154
	Network Capital Replacment			4,351,084	4,409,271	4,440,171	4,449,569	4,440,250
	TOTAL			**4,668,238**	**4,726,425**	**4,757,325**	**4,766,723**	**4,757,404**
Free Cash Flow	Raw			325,480	229,390	157,770	114,780	91,428
	PV			184,306	124,899	82,599	57,781	44,255
Bond Amortization	Balance			28,045,034	23,816,912	19,419,664	14,846,526	10,090,463
	Principal			4,228,123	4,397,248	4,573,138	4,756,063	4,946,306
	Interest			1,121,801	952,676	776,787	593,861	403,619
	Payment			5,349,924	5,349,924	5,349,924	5,349,924	5,349,924

Financials

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High							
		Subscription		19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC		32,173	32,173	32,173	32,173	32,173
	Data Low							
		Subscription		-	-	-	-	-
		NRC		5,023	5,023	5,023	5,023	5,023
	Voice							
		Subscription		2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			25,634	25,634	25,634	25,634	25,634
	Customer Acquisition							
		Data High		10,724	10,724	10,724	10,724	10,724
		Data Low		335	335	335	335	335
		TOTAL		11,059	11,059	11,059	11,059	11,059
	Service Install			18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A			6,077,229	6,088,338	6,099,448	6,110,558	6,121,667
	Network operating expenses			5,256,241	5,274,881	5,293,521	5,312,161	5,330,801
	TOTAL			**11,388,761**	**11,418,510**	**11,448,260**	**11,478,009**	**11,507,759**
EBITDA				**10,233,866**	**10,204,116**	**10,174,367**	**10,144,617**	**10,114,868**
Tax Depreciation				4,475,232	4,535,544	4,568,717	4,568,213	4,585,581
EBIT				**5,758,634**	**5,668,572**	**5,605,649**	**5,576,405**	**5,529,287**
Interest				205,766	-	-	-	-
Income				**5,552,868**	**5,668,572**	**5,605,649**	**5,576,405**	**5,529,287**
Tax				66,634	68,023	67,268	66,917	66,351
Net Income				**5,486,233**	**5,600,549**	**5,538,382**	**5,509,488**	**5,462,936**

Unit	Item			Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment			-	-	-	-	-
	Success Based			317,154	317,154	317,154	317,154	317,154
	Network Capital Replacment			4,425,159	4,408,160	4,394,798	4,389,355	4,394,606
	TOTAL			**4,742,313**	**4,725,314**	**4,711,952**	**4,706,509**	**4,711,760**
Free Cash Flow	Raw			74,994	5,410,779	5,395,148	5,371,191	5,336,757
	PV			34,904	2,421,455	2,321,595	2,222,391	2,123,215
Bond Amortization	Balance			5,144,158	-	-	-	-
	Principal			5,144,158	-	-	-	-
	Interest			205,766	-	-	-	-
	Payment			5,349,924	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High							
		Subscription		19,502,457	19,502,457	19,502,457	19,502,457	19,502,457
		NRC		32,173	32,173	32,173	32,173	32,173
	Data Low							
		Subscription		-	-	-	-	-
		NRC		5,023	5,023	5,023	5,023	5,023
	Voice							
		Subscription		2,082,974	2,082,974	2,082,974	2,082,974	2,082,974
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			25,634	25,634	25,634	25,634	25,634
	Customer Acquisition							
		Data High		10,724	10,724	10,724	10,724	10,724
		Data Low		335	335	335	335	335
		TOTAL		11,059	11,059	11,059	11,059	11,059
	Service Install			18,598	18,598	18,598	18,598	18,598
	Customer Operations, Advertising, G&A			6,132,777	6,143,886	6,154,996	6,166,106	6,177,215
	Network operating expenses			5,349,441	5,368,081	5,386,720	5,405,360	5,424,000
	TOTAL			**11,537,508**	**11,567,258**	**11,597,007**	**11,626,757**	**11,656,506**
EBITDA				**10,085,118**	**10,055,369**	**10,025,620**	**9,995,870**	**9,966,121**
Tax Depreciation				4,625,853	4,655,577	4,683,226	4,711,361	4,741,047
EBIT				**5,459,266**	**5,399,792**	**5,342,393**	**5,284,509**	**5,225,074**
Interest				-	-	-	-	-
Income				**5,459,266**	**5,399,792**	**5,342,393**	**5,284,509**	**5,225,074**
Tax				65,511	64,798	64,109	63,414	62,701
Net Income				**5,393,755**	**5,334,994**	**5,278,284**	**5,221,095**	**5,162,373**

Unit	Item			Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment			-	-	-	-	-
	Success Based			317,154	317,154	317,154	317,154	317,154
	Network Capital Replacment			4,411,735	4,440,458	4,479,278	4,525,859	4,577,433
	TOTAL			**4,728,889**	**4,757,612**	**4,796,432**	**4,843,013**	**4,894,587**
Free Cash Flow	Raw			5,290,718	5,232,960	5,165,079	5,089,443	5,008,833
	PV			2,023,941	1,924,852	1,826,810	1,730,826	1,637,896
Bond Amortization	Balance			-	-	-	-	-
	Principal			-	-	-	-	-
	Interest			-	-	-	-	-
	Payment			-	-	-	-	-

TILSON

Financials

Unit	Product	Measure	Res/Bus/Total	Year 30
Revenues	Data High			
		Subscription		19,502,457
		NRC		32,173
	Data Low			
		Subscription		-
		NRC		5,023
	Voice			
		Subscription		2,082,974
		NRC		-
Operational Costs	Voice expenses			25,634
	Customer Acquisition			
		Data High		10,724
		Data Low		335
		TOTAL		11,059
	Service Install			18,598
	Customer Operations, Advertising, G&A			6,188,325
	Network operating expenses			5,442,640
	TOTAL			**11,686,256**
EBITDA				**9,936,371**
Tax Depreciation				4,772,859
EBIT				**5,163,512**
Interest				-
Income				**5,163,512**
Tax				61,962
Net Income				**5,101,550**

Unit	Item			Year 30
Capital	Initial Deployment			-
	Success Based			317,154
	Network Capital Replacment			4,631,178
	TOTAL			**4,948,332**
Free Cash Flow	Raw			4,926,077
	PV			1,548,880
Bond Amortization	Balance			-
	Principal			-
	Interest			-
	Payment			-

C.1.3 Open Access

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	54,007	54,007	54,007	54,007
			Bus	-	8,981	8,981	8,981	8,981
			Total	-	62,988	62,988	62,988	62,988
	Data High							
		Average	Res	-	3,868	10,055	13,045	14,147
			Bus	-	576	2,016	3,072	3,359
			Total	-	4,444	12,071	16,116	17,507
	Data Low							
		Average	Res	-	54,007	54,007	54,007	54,007
			Bus	-	8,981	8,981	8,981	8,981
			Total	-	62,988	62,988	62,988	62,988
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	15	15	15	15
			Bus	-	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	-	37	37	37	37
			Bus	-	37	37	37	37
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Data High							
		Average	Res	15,026	15,921	17,067	17,830	17,894
			Bus	3,551	3,743	3,839	3,839	3,839
			Total	18,577	19,664	20,907	21,670	21,733
	Data Low							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	37	37	37	37	37
			Bus	37	37	37	37	37
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Data High							
		Average	Res	17,894	17,894	17,894	17,894	17,894
			Bus	3,839	3,839	3,839	3,839	3,839
			Total	21,733	21,733	21,733	21,733	21,733
	Data Low							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	37	37	37	37	37
			Bus	37	37	37	37	37
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Data High							
		Average	Res	17,894	17,894	17,894	17,894	17,894
			Bus	3,839	3,839	3,839	3,839	3,839
			Total	21,733	21,733	21,733	21,733	21,733
	Data Low							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	37	37	37	37	37
			Bus	37	37	37	37	37
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Data High							
		Average	Res	17,894	17,894	17,894	17,894	17,894
			Bus	3,839	3,839	3,839	3,839	3,839
			Total	21,733	21,733	21,733	21,733	21,733
	Data Low							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	37	37	37	37	37
			Bus	37	37	37	37	37
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Data High							
		Average	Res	17,894	17,894	17,894	17,894	17,894
			Bus	3,839	3,839	3,839	3,839	3,839
			Total	21,733	21,733	21,733	21,733	21,733
	Data Low							
		Average	Res	54,007	54,007	54,007	54,007	54,007
			Bus	8,981	8,981	8,981	8,981	8,981
			Total	62,988	62,988	62,988	62,988	62,988
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	37	37	37	37	37
			Bus	37	37	37	37	37
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	54,007
			Bus	8,981
			Total	62,988
	Data High			
		Average	Res	17,894
			Bus	3,839
			Total	21,733
	Data Low			
		Average	Res	54,007
			Bus	8,981
			Total	62,988
	Voice			
		Average	Res	-
			Bus	-
			Total	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	15
			Bus	15
		NRC	Res	-
			Bus	-
	Data Low			
		Data Low	Res	37
			Bus	37
		NRC	Res	-
			Bus	-
	Voice			
		Voice	Res	-
			Bus	-
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High							
		Subscription		-	799,965	2,172,757	2,900,919	3,151,200
		NRC		-	-	-	-	-
	Data Low							
		Subscription		-	27,896,272	27,896,272	27,896,272	27,896,272
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			-	47,241	47,241	47,241	47,241
	Customer Operations, Advertising, G&A			-	5,017,767	5,030,100	5,042,370	5,054,577
	Network operating expenses			-	7,176,335	7,213,231	7,249,940	7,286,462
	TOTAL			**-**	**12,241,343**	**12,290,572**	**12,339,551**	**12,388,280**
EBITDA				**-**	**16,454,895**	**17,778,457**	**18,457,641**	**18,659,193**
Tax Depreciation				-	8,095,265	22,557,651	24,445,384	17,269,330
EBIT				**-**	**8,359,629**	**(4,779,194)**	**(5,987,743)**	**1,389,862**
Interest				-	5,478,244	5,478,244	5,478,244	5,478,244
Income				**-**	**2,881,385**	**(10,257,438)**	**(11,465,987)**	**(4,088,382)**
Tax				-	25,932	(92,317)	(103,194)	(36,795)
Net Income				**-**	**2,855,452**	**(10,165,121)**	**(11,362,793)**	**(4,051,587)**

Unit	Item			Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment			64,762,123	-	-	-	-
	Success Based			-	72,193,985	704,140	700,565	696,991
	Network Capital Replacment			-	762,101	1,865,869	2,417,487	2,980,071
	TOTAL			**64,762,123**	**72,956,086**	**2,570,009**	**3,118,053**	**3,677,062**
Free Cash Flow	Raw			-	10,188,617	9,822,521	9,964,538	3,761,336
	PV			-	9,990,761	9,261,321	9,033,869	3,278,880
Bond Amortization	Balance				136,956,109	136,956,109	136,956,109	136,956,109
	Principal				-	-	-	5,779,345
	Interest				5,478,244	5,478,244	5,478,244	5,478,244
	Payment				5,478,244	5,478,244	5,478,244	11,257,590

Financials

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High							
		Subscription		3,343,943	3,539,539	3,763,220	3,900,514	3,911,925
		NRC		-	-	-	-	-
	Data Low							
		Subscription		27,896,272	27,896,272	27,896,272	27,896,272	27,896,272
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			47,241	47,241	47,241	47,241	47,241
	Customer Operations, Advertising, G&A			5,066,722	5,078,804	5,090,824	5,102,781	5,113,423
	Network operating expenses			7,322,796	7,358,943	7,394,902	7,430,675	7,462,514
	TOTAL			**12,436,759**	**12,484,988**	**12,532,967**	**12,580,697**	**12,623,178**
EBITDA				**18,803,457**	**18,950,824**	**19,126,525**	**19,216,089**	**19,185,019**
Tax Depreciation				14,448,603	12,585,086	8,809,653	7,106,451	7,575,777
EBIT				**4,354,854**	**6,365,738**	**10,316,872**	**12,109,638**	**11,609,242**
Interest				5,247,071	5,006,650	4,756,612	4,496,573	4,226,132
Income				**(892,217)**	**1,359,088**	**5,560,260**	**7,613,065**	**7,383,110**
Tax				(8,030)	12,232	50,042	68,518	66,448
Net Income				**(884,187)**	**1,346,856**	**5,510,217**	**7,544,548**	**7,316,662**

Unit	Item			Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment			-	-	-	-	-
	Success Based			693,417	689,843	686,268	682,694	607,633
	Network Capital Replacment			3,544,983	4,102,674	4,643,015	5,155,721	5,630,856
	TOTAL			**4,238,400**	**4,792,517**	**5,329,284**	**5,838,414**	**6,238,490**
Free Cash Flow	Raw			3,315,498	2,888,486	2,489,609	2,051,568	1,622,492
	PV			2,779,065	2,328,021	1,929,365	1,528,748	1,162,517
Bond Amortization	Balance			131,176,763	125,166,244	118,915,304	112,414,327	105,653,310
	Principal			6,010,519	6,250,940	6,500,978	6,761,017	7,031,457
	Interest			5,247,071	5,006,650	4,756,612	4,496,573	4,226,132
	Payment			11,257,590	11,257,590	11,257,590	11,257,590	11,257,590

Financials

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High							
		Subscription		3,911,925	3,911,925	3,911,925	3,911,925	3,911,925
		NRC		-	-	-	-	-
	Data Low							
		Subscription		27,896,272	27,896,272	27,896,272	27,896,272	27,896,272
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			47,241	47,241	47,241	47,241	47,241
	Customer Operations, Advertising, G&A			5,125,944	5,138,464	5,150,985	5,163,506	5,176,026
	Network operating expenses			7,499,972	7,537,430	7,574,888	7,612,346	7,649,804
	TOTAL			**12,673,157**	**12,723,135**	**12,773,114**	**12,823,092**	**12,873,071**
EBITDA				**19,135,041**	**19,085,062**	**19,035,084**	**18,985,106**	**18,935,127**
Tax Depreciation				8,036,846	8,501,917	8,972,395	9,419,264	9,844,451
EBIT				**11,098,195**	**10,583,146**	**10,062,689**	**9,565,841**	**9,090,676**
Interest				3,944,874	3,652,365	3,348,157	3,031,779	2,702,747
Income				**7,153,321**	**6,930,780**	**6,714,533**	**6,534,062**	**6,387,929**
Tax				64,380	62,377	60,431	58,807	57,491
Net Income				**7,088,941**	**6,868,403**	**6,654,102**	**6,475,256**	**6,330,438**

Unit	Item			Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment			-	-	-	-	-
	Success Based			714,863	714,863	714,863	714,863	714,863
	Network Capital Replacment			6,058,572	6,433,237	6,748,606	7,001,858	7,193,077
	TOTAL			**6,773,434**	**7,148,099**	**7,463,469**	**7,716,720**	**7,907,940**
Free Cash Flow	Raw			1,039,637	616,996	253,595	(48,011)	(287,894)
	PV			716,250	408,726	161,531	(29,405)	(169,544)
Bond Amortization	Balance			98,621,853	91,309,137	83,703,913	75,794,479	67,568,669
	Principal			7,312,716	7,605,224	7,909,433	8,225,811	8,554,843
	Interest			3,944,874	3,652,365	3,348,157	3,031,779	2,702,747
	Payment			11,257,590	11,257,590	11,257,590	11,257,590	11,257,590

Financials

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High							
		Subscription		3,911,925	3,911,925	3,911,925	3,911,925	3,911,925
		NRC		-	-	-	-	-
	Data Low							
		Subscription		27,896,272	27,896,272	27,896,272	27,896,272	27,896,272
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			47,241	47,241	47,241	47,241	47,241
	Customer Operations, Advertising, G&A			5,188,547	5,201,067	5,213,588	5,226,108	5,238,629
	Network operating expenses			7,687,262	7,724,719	7,762,177	7,799,635	7,837,093
	TOTAL			**12,923,049**	**12,973,027**	**13,023,006**	**13,072,984**	**13,122,963**
EBITDA				**18,885,149**	**18,835,170**	**18,785,192**	**18,735,213**	**18,685,235**
Tax Depreciation				10,246,288	9,669,911	7,979,077	7,168,874	7,280,052
EBIT				**8,638,860**	**9,165,260**	**10,806,115**	**11,566,340**	**11,405,183**
Interest				2,360,553	2,004,672	1,634,555	1,249,633	849,315
Income				**6,278,307**	**7,160,588**	**9,171,560**	**10,316,706**	**10,555,867**
Tax				56,505	64,445	82,544	92,850	95,003
Net Income				**6,221,803**	**7,096,143**	**9,089,016**	**10,223,856**	**10,460,865**

Unit	Item			Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment			-	-	-	-	-
	Success Based			714,863	714,863	714,863	714,863	714,863
	Network Capital Replacment			7,325,402	7,404,922	7,440,316	7,442,231	7,414,035
	TOTAL			**8,040,265**	**8,119,785**	**8,155,179**	**8,157,094**	**8,128,898**
Free Cash Flow	Raw			(469,211)	(606,650)	(710,121)	(772,320)	(796,256)
	PV			(265,696)	(330,310)	(371,777)	(388,789)	(385,421)
Bond Amortization	Balance			59,013,826	50,116,789	40,863,871	31,240,836	21,232,880
	Principal			8,897,037	9,252,918	9,623,035	10,007,956	10,408,275
	Interest			2,360,553	2,004,672	1,634,555	1,249,633	849,315
	Payment			11,257,590	11,257,590	11,257,590	11,257,590	11,257,590

Financials

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High							
		Subscription		3,911,925	3,911,925	3,911,925	3,911,925	3,911,925
		NRC		-	-	-	-	-
	Data Low							
		Subscription		27,896,272	27,896,272	27,896,272	27,896,272	27,896,272
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			47,241	47,241	47,241	47,241	47,241
	Customer Operations, Advertising, G&A			5,251,149	5,263,670	5,276,190	5,288,711	5,301,231
	Network operating expenses			7,874,551	7,912,009	7,949,467	7,986,925	8,024,383
	TOTAL			**13,172,941**	**13,222,920**	**13,272,898**	**13,322,877**	**13,372,855**
EBITDA				**18,635,256**	**18,585,278**	**18,535,299**	**18,485,321**	**18,435,343**
Tax Depreciation				7,381,682	7,556,501	7,684,772	7,763,959	7,848,519
EBIT				**11,253,574**	**11,028,777**	**10,850,527**	**10,721,362**	**10,586,823**
Interest				432,984	-	-	-	-
Income				**10,820,590**	**11,028,777**	**10,850,527**	**10,721,362**	**10,586,823**
Tax				97,385	99,259	97,655	96,492	95,281
Net Income				**10,723,205**	**10,929,518**	**10,752,872**	**10,624,869**	**10,491,542**

Unit	Item			Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment			-	-	-	-	-
	Success Based			714,863	714,863	714,863	714,863	714,863
	Network Capital Replacment			7,381,695	7,350,654	7,330,319	7,327,648	7,346,738
	TOTAL			**8,096,558**	**8,065,517**	**8,045,182**	**8,042,511**	**8,061,601**
Free Cash Flow	Raw			(816,277)	10,420,502	10,392,463	10,346,318	10,278,460
	PV			(379,916)	4,663,427	4,471,999	4,280,906	4,089,259
Bond Amortization	Balance			10,824,605	-	-	-	-
	Principal			10,824,605	-	-	-	-
	Interest			432,984	-	-	-	-
	Payment			11,257,590	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High							
		Subscription		3,911,925	3,911,925	3,911,925	3,911,925	3,911,925
		NRC		-	-	-	-	-
	Data Low							
		Subscription		27,896,272	27,896,272	27,896,272	27,896,272	27,896,272
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			47,241	47,241	47,241	47,241	47,241
	Customer Operations, Advertising, G&A			5,313,752	5,326,272	5,338,793	5,351,313	5,363,834
	Network operating expenses			8,061,841	8,099,299	8,136,757	8,174,215	8,211,673
	TOTAL			**13,422,834**	**13,472,812**	**13,522,790**	**13,572,769**	**13,622,747**
EBITDA				**18,385,364**	**18,335,386**	**18,285,407**	**18,235,429**	**18,185,450**
Tax Depreciation				7,924,194	7,974,220	8,023,041	8,075,062	8,131,593
EBIT				**10,461,170**	**10,361,166**	**10,262,366**	**10,160,367**	**10,053,857**
Interest				-	-	-	-	-
Income				**10,461,170**	**10,361,166**	**10,262,366**	**10,160,367**	**10,053,857**
Tax				94,151	93,250	92,361	91,443	90,485
Net Income				**10,367,019**	**10,267,915**	**10,170,005**	**10,068,924**	**9,963,372**

Unit	Item			Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment			-	-	-	-	-
	Success Based			714,863	714,863	714,863	714,863	714,863
	Network Capital Replacment			7,388,761	7,452,238	7,533,597	7,627,914	7,729,702
	TOTAL			**8,103,624**	**8,167,100**	**8,248,460**	**8,342,777**	**8,444,564**
Free Cash Flow	Raw			10,187,589	10,075,035	9,944,586	9,801,209	9,650,401
	PV			3,897,217	3,705,923	3,517,250	3,333,211	3,155,696
Bond Amortization	Balance			-	-	-	-	-
	Principal			-	-	-	-	-
	Interest			-	-	-	-	-
	Payment			-	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 30
Revenues	Data High			
		Subscription		3,911,925
		NRC		-
	Data Low			
		Subscription		27,896,272
		NRC		-
	Voice			
		Subscription		-
		NRC		-
Operational Costs	Voice expenses			-
	Customer Acquisition			
		Data High		-
		Data Low		-
		TOTAL		-
	Service Install			47,241
	Customer Operations, Advertising, G&A			5,376,354
	Network operating expenses			8,249,131
	TOTAL			**13,672,726**
EBITDA				**18,135,472**
Tax Depreciation				8,193,139
EBIT				**9,942,332**
Interest				-
Income				**9,942,332**
Tax				89,481
Net Income				**9,852,851**

Unit	Item			Year 30
Capital	Initial Deployment			-
	Success Based			714,863
	Network Capital Replacment			7,833,631
	TOTAL			**8,548,494**
Free Cash Flow	Raw			9,497,497
	PV			2,986,246
Bond Amortization	Balance			-
	Principal			-
	Interest			-
	Payment			-

C.1.4 Dark Fiber

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	5,397	14,029	18,201	19,738
			Bus	-	768	2,688	4,095	4,479
			Total	-	6,165	16,716	22,296	24,217
	Data High							
		Average	Res	-	4,642	12,066	15,654	16,977
			Bus	-	691	2,419	3,686	4,031
			Total	-	5,333	14,485	19,339	21,008
	Data Low							
		Average	Res	-	5,397	14,029	18,201	19,738
			Bus	-	768	2,688	4,095	4,479
			Total	-	6,165	16,716	22,296	24,217
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	5	5	5	5
			Bus	-	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	-	23	23	23	23
			Bus	-	23	23	23	23
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	20,963	22,213	23,819	24,902	25,004
			Bus	4,735	4,991	5,119	5,119	5,119
			Total	25,698	27,204	28,939	30,021	30,123
	Data High							
		Average	Res	18,031	19,105	20,481	21,396	21,472
			Bus	4,262	4,492	4,607	4,607	4,607
			Total	22,293	23,597	25,088	26,003	26,080
	Data Low							
		Average	Res	20,963	22,213	23,819	24,902	25,004
			Bus	4,735	4,991	5,119	5,119	5,119
			Total	25,698	27,204	28,939	30,021	30,123
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	23	23	23	23	23
			Bus	23	23	23	23	23
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Data High							
		Average	Res	21,472	21,472	21,472	21,472	21,472
			Bus	4,607	4,607	4,607	4,607	4,607
			Total	26,080	26,080	26,080	26,080	26,080
	Data Low							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	23	23	23	23	23
			Bus	23	23	23	23	23
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Data High							
		Average	Res	21,472	21,472	21,472	21,472	21,472
			Bus	4,607	4,607	4,607	4,607	4,607
			Total	26,080	26,080	26,080	26,080	26,080
	Data Low							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	23	23	23	23	23
			Bus	23	23	23	23	23
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Data High							
		Average	Res	21,472	21,472	21,472	21,472	21,472
			Bus	4,607	4,607	4,607	4,607	4,607
			Total	26,080	26,080	26,080	26,080	26,080
	Data Low							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	23	23	23	23	23
			Bus	23	23	23	23	23
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Data High							
		Average	Res	21,472	21,472	21,472	21,472	21,472
			Bus	4,607	4,607	4,607	4,607	4,607
			Total	26,080	26,080	26,080	26,080	26,080
	Data Low							
		Average	Res	25,004	25,004	25,004	25,004	25,004
			Bus	5,119	5,119	5,119	5,119	5,119
			Total	30,123	30,123	30,123	30,123	30,123
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	23	23	23	23	23
			Bus	23	23	23	23	23
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	25,004
			Bus	5,119
			Total	30,123
	Data High			
		Average	Res	21,472
			Bus	4,607
			Total	26,080
	Data Low			
		Average	Res	25,004
			Bus	5,119
			Total	30,123
	Voice			
		Average	Res	-
			Bus	-
			Total	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	5
			Bus	5
		NRC	Res	-
			Bus	-
	Data Low			
		Data Low	Res	23
			Bus	23
		NRC	Res	-
			Bus	-
	Voice			
		Voice	Res	-
			Bus	-
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High							
		Subscription		-	319,986	869,103	1,160,368	1,260,480
		NRC		-	-	-	-	-
	Data Low							
		Subscription		-	1,712,506	4,643,473	6,193,497	6,727,205
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			-	-	-	-	-
	Customer Operations, Advertising, G&A			-	246,710	371,995	438,252	461,065
	Network operating expenses			-	2,250,426	2,250,426	2,250,426	2,250,426
	TOTAL			**-**	**2,497,137**	**2,622,422**	**2,688,678**	**2,711,491**
EBITDA				**-**	**(464,644)**	**2,890,154**	**4,665,186**	**5,276,194**
Tax Depreciation				-	6,191,587	10,350,895	7,090,775	5,124,278
EBIT				**-**	**(6,656,231)**	**(7,460,740)**	**(2,425,588)**	**151,916**
Interest				-	1,981,308	1,981,308	1,981,308	1,981,308
Income				**-**	**(8,637,539)**	**(9,442,048)**	**(4,406,896)**	**(1,829,392)**
Tax				-	(77,738)	(84,978)	(39,662)	(16,465)
Net Income				**-**	**(8,559,801)**	**(9,357,070)**	**(4,367,234)**	**(1,812,927)**

Unit	Item			Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment			49,532,695	-	-	-	-
	Success Based			-	-	-	-	-
	Network Capital Replacment			-	582,885	777,317	976,135	1,176,369
	TOTAL			**49,532,695**	**582,885**	**777,317**	**976,135**	**1,176,369**
Free Cash Flow	Raw			-	(2,951,100)	216,508	1,747,405	44,775
	PV			-	(2,893,791)	204,138	1,584,201	39,032
Bond Amortization	Balance				49,532,695	49,532,695	49,532,695	49,532,695
	Principal				-	-	-	2,090,207
	Interest				1,981,308	1,981,308	1,981,308	1,981,308
	Payment				1,981,308	1,981,308	1,981,308	4,071,514

Financials

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High							
		Subscription		1,337,577	1,415,816	1,505,288	1,560,205	1,564,770
		NRC		-	-	-	-	-
	Data Low							
		Subscription		7,138,543	7,556,925	8,038,702	8,339,465	8,367,643
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			-	-	-	-	-
	Customer Operations, Advertising, G&A			478,648	496,532	517,125	529,982	531,186
	Network operating expenses			2,250,426	2,250,426	2,250,426	2,250,426	2,250,426
	TOTAL			**2,729,074**	**2,746,958**	**2,767,552**	**2,780,408**	**2,781,612**
EBITDA				**5,747,046**	**6,225,783**	**6,776,438**	**7,119,263**	**7,150,801**
Tax Depreciation				5,082,853	3,649,328	2,306,078	2,462,986	2,624,027
EBIT				**664,193**	**2,576,455**	**4,470,360**	**4,656,277**	**4,526,773**
Interest				1,897,700	1,810,747	1,720,316	1,626,268	1,528,458
Income				**(1,233,507)**	**765,708**	**2,750,044**	**3,030,009**	**2,998,315**
Tax				(11,102)	6,891	24,750	27,270	26,985
Net Income				**(1,222,405)**	**758,817**	**2,725,293**	**3,002,739**	**2,971,330**

Unit	Item			Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment			-	-	-	-	-
	Success Based			-	-	-	-	-
	Network Capital Replacment			1,374,686	1,567,495	1,751,083	1,921,791	2,076,213
	TOTAL			**1,374,686**	**1,567,495**	**1,751,083**	**1,921,791**	**2,076,213**
Free Cash Flow	Raw			311,947	579,883	929,091	1,098,687	976,088
	PV			261,475	467,366	720,015	818,698	699,368
Bond Amortization	Balance			47,442,488	45,268,673	43,007,906	40,656,708	38,211,462
	Principal			2,173,815	2,260,767	2,351,198	2,445,246	2,543,056
	Interest			1,897,700	1,810,747	1,720,316	1,626,268	1,528,458
	Payment			4,071,514	4,071,514	4,071,514	4,071,514	4,071,514

Financials

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High							
		Subscription		1,564,770	1,564,770	1,564,770	1,564,770	1,564,770
		NRC		-	-	-	-	-
	Data Low							
		Subscription		8,367,643	8,367,643	8,367,643	8,367,643	8,367,643
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			-	-	-	-	-
	Customer Operations, Advertising, G&A			531,186	531,186	531,186	531,186	531,186
	Network operating expenses			2,250,426	2,250,426	2,250,426	2,250,426	2,250,426
	TOTAL			**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**
EBITDA				**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**
Tax Depreciation				2,779,401	2,936,536	3,083,243	3,224,798	3,357,007
EBIT				**4,371,400**	**4,214,264**	**4,067,558**	**3,926,002**	**3,793,794**
Interest				1,426,736	1,320,945	1,210,922	1,096,499	977,498
Income				**2,944,663**	**2,893,319**	**2,856,636**	**2,829,504**	**2,816,296**
Tax				26,502	26,040	25,710	25,466	25,347
Net Income				**2,918,161**	**2,867,279**	**2,830,926**	**2,804,038**	**2,790,949**

Unit	Item			Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment			-	-	-	-	-
	Success Based			-	-	-	-	-
	Network Capital Replacment			2,211,406	2,325,103	2,415,910	2,483,448	2,528,444
	TOTAL			**2,211,406**	**2,325,103**	**2,415,910**	**2,483,448**	**2,528,444**
Free Cash Flow	Raw			841,379	728,143	637,666	570,372	525,495
	PV			579,662	482,355	406,172	349,335	309,470
Bond Amortization	Balance			35,668,406	33,023,628	30,273,059	27,412,467	24,437,451
	Principal			2,644,778	2,750,569	2,860,592	2,975,016	3,094,016
	Interest			1,426,736	1,320,945	1,210,922	1,096,499	977,498
	Payment			4,071,514	4,071,514	4,071,514	4,071,514	4,071,514

Financials

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High							
		Subscription		1,564,770	1,564,770	1,564,770	1,564,770	1,564,770
		NRC		-	-	-	-	-
	Data Low							
		Subscription		8,367,643	8,367,643	8,367,643	8,367,643	8,367,643
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			-	-	-	-	-
	Customer Operations, Advertising, G&A			531,186	531,186	531,186	531,186	531,186
	Network operating expenses			2,250,426	2,250,426	2,250,426	2,250,426	2,250,426
	TOTAL			**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**
EBITDA				**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**
Tax Depreciation				3,478,613	2,863,290	2,218,215	2,286,513	2,339,560
EBIT				**3,672,188**	**4,287,511**	**4,932,586**	**4,864,288**	**4,811,241**
Interest				853,737	725,026	591,167	451,953	307,170
Income				**2,818,450**	**3,562,484**	**4,341,419**	**4,412,335**	**4,504,070**
Tax				25,366	32,062	39,073	39,711	40,537
Net Income				**2,793,084**	**3,530,422**	**4,302,346**	**4,372,624**	**4,463,534**

Unit	Item			Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment			-	-	-	-	-
	Success Based			-	-	-	-	-
	Network Capital Replacment			2,552,732	2,559,162	2,551,413	2,533,716	2,510,518
	TOTAL			**2,552,732**	**2,559,162**	**2,551,413**	**2,533,716**	**2,510,518**
Free Cash Flow	Raw			501,188	488,062	488,801	505,859	528,232
	PV			283,803	265,741	255,907	254,651	255,687
Bond Amortization	Balance			21,343,435	18,125,658	14,779,170	11,298,823	7,679,261
	Principal			3,217,777	3,346,488	3,480,347	3,619,561	3,764,344
	Interest			853,737	725,026	591,167	451,953	307,170
	Payment			4,071,514	4,071,514	4,071,514	4,071,514	4,071,514

Financials

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High							
		Subscription		1,564,770	1,564,770	1,564,770	1,564,770	1,564,770
		NRC		-	-	-	-	-
	Data Low							
		Subscription		8,367,643	8,367,643	8,367,643	8,367,643	8,367,643
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			-	-	-	-	-
	Customer Operations, Advertising, G&A			531,186	531,186	531,186	531,186	531,186
	Network operating expenses			2,250,426	2,250,426	2,250,426	2,250,426	2,250,426
	TOTAL			**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**
EBITDA				**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**
Tax Depreciation				2,379,014	2,406,991	2,425,883	2,438,171	2,446,222
EBIT				**4,771,786**	**4,743,810**	**4,724,917**	**4,712,630**	**4,704,579**
Interest				156,597	-	-	-	-
Income				**4,615,190**	**4,743,810**	**4,724,917**	**4,712,630**	**4,704,579**
Tax				41,537	42,694	42,524	42,414	42,341
Net Income				**4,573,653**	**4,701,116**	**4,682,393**	**4,670,216**	**4,662,238**

Unit	Item			Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment			-	-	-	-	-
	Success Based			-	-	-	-	-
	Network Capital Replacment			2,486,108	2,464,266	2,447,960	2,439,147	2,438,691
	TOTAL			**2,486,108**	**2,464,266**	**2,447,960**	**2,439,147**	**2,438,691**
Free Cash Flow	Raw			551,642	4,643,841	4,660,317	4,669,240	4,669,769
	PV			256,748	2,078,231	2,005,389	1,931,951	1,857,855
Bond Amortization	Balance			3,914,918	(0)	(0)	(0)	(0)
	Principal			3,914,918	-	-	-	-
	Interest			156,597	-	-	-	-
	Payment			4,071,514	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High							
		Subscription		1,564,770	1,564,770	1,564,770	1,564,770	1,564,770
		NRC		-	-	-	-	-
	Data Low							
		Subscription		8,367,643	8,367,643	8,367,643	8,367,643	8,367,643
		NRC		-	-	-	-	-
	Voice							
		Subscription		-	-	-	-	-
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	-	-	-	-
	Customer Acquisition							
		Data High		-	-	-	-	-
		Data Low		-	-	-	-	-
		TOTAL		-	-	-	-	-
	Service Install			-	-	-	-	-
	Customer Operations, Advertising, G&A			531,186	531,186	531,186	531,186	531,186
	Network operating expenses			2,250,426	2,250,426	2,250,426	2,250,426	2,250,426
	TOTAL			**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**	**2,781,612**
EBITDA				**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**	**7,150,801**
Tax Depreciation				2,452,124	2,457,559	2,463,731	2,471,362	2,480,731
EBIT				**4,698,676**	**4,693,242**	**4,687,069**	**4,679,439**	**4,670,069**
Interest				-	-	-	-	-
Income				**4,698,676**	**4,693,242**	**4,687,069**	**4,679,439**	**4,670,069**
Tax				42,288	42,239	42,184	42,115	42,031
Net Income				**4,656,388**	**4,651,002**	**4,644,886**	**4,637,324**	**4,628,039**

Unit	Item			Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment			-	-	-	-	-
	Success Based			-	-	-	-	-
	Network Capital Replacment			2,446,413	2,461,264	2,481,570	2,505,330	2,530,504
	TOTAL			**2,446,413**	**2,461,264**	**2,481,570**	**2,505,330**	**2,530,504**
Free Cash Flow	Raw			4,662,099	4,647,298	4,627,047	4,603,356	4,578,266
	PV			1,783,465	1,709,426	1,636,517	1,565,517	1,497,100
Bond Amortization	Balance			(0)	(0)	(0)	(0)	(0)
	Principal			-	-	-	-	-
	Interest			-	-	-	-	-
	Payment			-	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 30
Revenues	Data High			
		Subscription		1,564,770
		NRC		-
	Data Low			
		Subscription		8,367,643
		NRC		-
	Voice			
		Subscription		-
		NRC		-
Operational Costs	Voice expenses			-
	Customer Acquisition			
		Data High		-
		Data Low		-
		TOTAL		-
	Service Install			-
	Customer Operations, Advertising, G&A			531,186
	Network operating expenses			2,250,426
	TOTAL			**2,781,612**
EBITDA				**7,150,801**
Tax Depreciation				2,491,770
EBIT				**4,659,031**
Interest				-
Income				**4,659,031**
Tax				41,931
Net Income				**4,617,100**

Unit	Item			Year 30
Capital	Initial Deployment			-
	Success Based			-
	Network Capital Replacment			2,555,245
	TOTAL			**2,555,245**
Free Cash Flow	Raw			4,553,624
	PV			1,431,771
Bond Amortization	Balance			(0)
	Principal			-
	Interest			-
	Payment			-

C.2 Scenarios for Shawnee County Outside City of Topeka

C.2.1 Retail No Structure

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	1,697	4,382	5,637	6,086
			Bus	-	135	472	719	786
			Total	-	1,832	4,853	6,356	6,872
	Data High							
		Average	Res	-	1,606	4,147	5,335	5,759
			Bus	-	121	425	647	708
			Total	-	1,728	4,571	5,982	6,467
	Data Low							
		Average	Res	-	91	235	303	327
			Bus	-	13	47	72	79
			Total	-	104	282	375	405
	Voice							
		Average	Res	-	594	1,534	1,973	2,130
			Bus	-	47	165	252	275
			Total	-	641	1,699	2,225	2,405

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	70	70	70	70
			Bus	-	100	100	100	100
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Voice							
		Voice	Res	-	20	20	20	20
			Bus	-	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	6,528	6,969	7,162	7,176	7,176
			Bus	831	876	899	899	899
			Total	7,359	7,845	8,061	8,074	8,074
	Data High							
		Average	Res	6,177	6,596	6,778	6,790	6,790
			Bus	748	788	809	809	809
			Total	6,925	7,384	7,586	7,599	7,599
	Data Low							
		Average	Res	350	374	385	386	386
			Bus	83	88	90	90	90
			Total	433	461	475	476	476
	Voice							
		Average	Res	2,285	2,439	2,507	2,512	2,512
			Bus	291	307	314	314	314
			Total	2,576	2,746	2,821	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	7,176
			Bus	899
			Total	8,074
	Data High			
		Average	Res	6,790
			Bus	809
			Total	7,599
	Data Low			
		Average	Res	386
			Bus	90
			Total	476
	Voice			
		Average	Res	2,512
			Bus	314
			Total	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	70
			Bus	100
		NRC	Res	150
			Bus	150
	Data Low			
		Data Low	Res	-
			Bus	-
		NRC	Res	150
			Bus	150
	Voice			
		Voice	Res	20
			Bus	20
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High							
		Subscription		-	1,494,997	3,992,564	5,257,535	5,686,783
		NRC		-	520,924	341,524	97,489	66,689
	Data Low							
		Subscription		-	-	-	-	-
		NRC		-	31,500	22,412	6,252	4,177
	Voice							
		Subscription		-	153,909	407,682	533,923	577,257
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	1,894	5,017	6,571	7,104
	Customer Acquisition							
		Data High		-	173,641	113,841	32,496	22,230
		Data Low		-	2,100	1,494	417	278
		TOTAL		-	175,741	115,335	32,913	22,508
	Service Install			-	276,212	181,968	51,870	35,433
	Customer Operations, Advertising, G&A			-	1,929,653	2,427,248	2,645,224	2,733,430
	Network operating expenses			-	2,489,056	2,690,945	2,748,406	2,787,587
	TOTAL			**-**	**4,872,556**	**5,420,514**	**5,484,984**	**5,586,063**
EBITDA				-	(2,671,227)	(656,333)	410,215	748,844
Tax Depreciation				-	5,357,140	9,708,285	7,888,515	6,264,816
EBIT				-	(8,028,367)	(10,364,617)	(7,478,300)	(5,515,972)
Interest				-	678,983	670,054	565,633	484,409
Income				-	(8,707,350)	(11,034,672)	(8,043,934)	(6,000,381)
Tax				-	(2,368,399)	(3,001,431)	(2,187,950)	(1,632,104)
Net Income				-	(6,338,951)	(8,033,241)	(5,855,984)	(4,368,277)

Unit	Item			Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment			42,857,123	-	-	-	-
	Success Based			-	6,019,123	3,964,397	1,128,325	769,379
	Network Capital Replacment			-	504,329	743,389	985,690	1,211,938
	TOTAL			**42,857,123**	**6,523,453**	**4,707,785**	**2,114,015**	**1,981,317**
Free Cash Flow	Raw			(42,857,123)	(6,826,280)	(2,362,687)	484,150	399,630
	PV			(42,857,123)	(6,542,143)	(2,079,764)	391,435	296,763
Bond Amortization	Balance				48,876,247	48,876,247	48,876,247	48,876,247
	Principal				-	-	-	2,062,505
	Interest				1,955,050	1,955,050	1,955,050	1,955,050
	Payment				1,955,050	1,955,050	1,955,050	4,017,555

Financials

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High							
		Subscription		6,086,627	6,486,471	6,663,609	6,673,900	6,673,900
		NRC		91,002	68,065	15,055	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		5,462	4,261	1,120	714	714
	Voice							
		Subscription		618,133	659,008	677,108	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			7,607	8,110	8,333	8,347	8,347
	Customer Acquisition							
		Data High		30,334	22,688	5,018	3,799	3,799
		Data Low		364	284	75	48	48
		TOTAL		30,698	22,972	5,093	3,847	3,847
	Service Install			48,232	36,163	8,087	6,056	6,056
	Customer Operations, Advertising, G&A			2,827,904	2,913,134	2,944,708	2,950,739	2,954,669
	Network operating expenses			2,840,932	2,880,838	2,889,545	2,895,963	2,901,676
	TOTAL			**5,755,373**	**5,861,217**	**5,855,766**	**5,864,952**	**5,874,594**
EBITDA				**1,045,851**	**1,356,588**	**1,501,126**	**1,499,311**	**1,489,669**
Tax Depreciation				5,920,002	4,638,529	3,389,272	3,233,810	3,188,358
EBIT				**(4,874,151)**	**(3,281,941)**	**(1,888,146)**	**(1,734,499)**	**(1,698,689)**
Interest				432,433	384,689	349,154	332,961	321,274
Income				**(5,306,584)**	**(3,666,630)**	**(2,237,300)**	**(2,067,460)**	**(2,019,963)**
Tax				(1,443,391)	(997,323)	(608,546)	(562,349)	(549,430)
Net Income				**(3,863,193)**	**(2,669,306)**	**(1,628,755)**	**(1,505,111)**	**(1,470,533)**

Unit	Item			Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment			-	-	-	-	-
	Success Based			1,047,503	783,606	170,978	126,034	112,177
	Network Capital Replacment			1,437,255	1,664,079	1,883,210	2,085,573	2,271,627
	TOTAL			**2,484,758**	**2,447,686**	**2,054,187**	**2,211,607**	**2,383,805**
Free Cash Flow	Raw			4,484	(93,774)	55,484	(149,947)	(344,706)
	PV			3,058	(58,746)	31,925	(79,246)	(167,324)
Bond Amortization	Balance			46,813,741	44,668,736	42,437,930	40,117,892	37,705,052
	Principal			2,145,006	2,230,806	2,320,038	2,412,840	2,509,353
	Interest			1,872,550	1,786,749	1,697,517	1,604,716	1,508,202
	Payment			4,017,555	4,017,555	4,017,555	4,017,555	4,017,555

Financials

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			2,959,292	2,963,914	2,968,537	2,973,160	2,977,783
	Network operating expenses			2,908,397	2,915,118	2,921,838	2,928,559	2,935,280
	TOTAL			**5,885,938**	**5,897,281**	**5,908,625**	**5,919,969**	**5,931,313**
EBITDA				**1,478,325**	**1,466,981**	**1,455,637**	**1,444,294**	**1,432,950**
Tax Depreciation				3,283,420	3,413,720	3,542,254	3,692,630	3,853,120
EBIT				**(1,805,095)**	**(1,946,739)**	**(2,086,617)**	**(2,248,336)**	**(2,420,170)**
Interest				312,772	304,947	296,981	288,551	279,013
Income				**(2,117,867)**	**(2,251,686)**	**(2,383,598)**	**(2,536,888)**	**(2,699,183)**
Tax				(576,060)	(612,459)	(648,339)	(690,033)	(734,178)
Net Income				**(1,541,807)**	**(1,639,227)**	**(1,735,259)**	**(1,846,854)**	**(1,965,005)**

Unit	Item			Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment			-	-	-	-	-
	Success Based			131,973	131,973	131,973	131,973	131,973
	Network Capital Replacment			2,438,067	2,582,375	2,702,398	2,797,185	2,866,956
	TOTAL			**2,570,040**	**2,714,348**	**2,834,371**	**2,929,159**	**2,998,929**
Free Cash Flow	Raw			(515,656)	(634,909)	(730,395)	(794,831)	(831,802)
	PV			(229,902)	(259,995)	(274,716)	(274,583)	(263,930)
Bond Amortization	Balance			35,195,699	32,585,972	29,871,855	27,049,174	24,113,586
	Principal			2,609,727	2,714,116	2,822,681	2,935,588	3,053,012
	Interest			1,407,828	1,303,439	1,194,874	1,081,967	964,543
	Payment			4,017,555	4,017,555	4,017,555	4,017,555	4,017,555

Financials

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			2,982,406	2,987,029	2,991,652	2,996,275	3,000,898
	Network operating expenses			2,942,001	2,948,722	2,955,443	2,962,163	2,968,884
	TOTAL			**5,942,656**	**5,954,000**	**5,965,344**	**5,976,688**	**5,988,031**
EBITDA				**1,421,606**	**1,410,263**	**1,398,919**	**1,387,575**	**1,376,231**
Tax Depreciation				4,004,768	3,516,652	2,911,719	2,861,179	2,848,407
EBIT				**(2,583,162)**	**(2,106,390)**	**(1,512,800)**	**(1,473,604)**	**(1,472,176)**
Interest				267,903	255,053	249,022	251,234	253,929
Income				**(2,851,064)**	**(2,361,443)**	**(1,761,822)**	**(1,724,837)**	**(1,726,105)**
Tax				(775,490)	(642,312)	(479,216)	(469,156)	(469,500)
Net Income				**(2,075,575)**	**(1,719,130)**	**(1,282,606)**	**(1,255,682)**	**(1,256,604)**

Unit	Item			Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment			-	-	-	-	-
	Success Based			131,973	131,973	131,973	131,973	131,973
	Network Capital Replacment			2,913,136	2,938,304	2,946,029	2,940,614	2,925,203
	TOTAL			**3,045,109**	**3,070,277**	**3,078,002**	**3,072,587**	**3,057,176**
Free Cash Flow	Raw			(848,013)	(1,017,702)	(1,199,868)	(1,215,856)	(1,211,444)
	PV			(247,141)	(272,417)	(294,998)	(274,561)	(251,265)
Bond Amortization	Balance			21,060,574	17,885,442	14,583,305	11,149,082	7,577,490
	Principal			3,175,132	3,302,138	3,434,223	3,571,592	3,714,456
	Interest			842,423	715,418	583,332	445,963	303,100
	Payment			4,017,555	4,017,555	4,017,555	4,017,555	4,017,555

Financials

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			3,005,521	3,010,143	3,014,766	3,019,389	3,024,012
	Network operating expenses			2,975,605	2,982,326	2,989,047	2,995,767	3,002,488
	TOTAL			**5,999,375**	**6,010,719**	**6,022,062**	**6,033,406**	**6,044,750**
EBITDA				**1,364,888**	**1,353,544**	**1,342,200**	**1,330,857**	**1,319,513**
Tax Depreciation				2,872,409	2,903,761	2,920,089	2,935,405	2,958,075
EBIT				**(1,507,522)**	**(1,550,217)**	**(1,577,889)**	**(1,604,548)**	**(1,638,563)**
Interest				256,550	258,601	260,037	261,159	262,097
Income				**(1,764,072)**	**(1,808,818)**	**(1,837,926)**	**(1,865,708)**	**(1,900,659)**
Tax				(479,828)	(491,999)	(499,916)	(507,473)	(516,979)
Net Income				**(1,284,244)**	**(1,316,820)**	**(1,338,010)**	**(1,358,235)**	**(1,383,680)**

Unit	Item			Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment			-	-	-	-	-
	Success Based			131,973	131,973	131,973	131,973	131,973
	Network Capital Replacment			2,907,091	2,889,565	2,876,238	2,869,744	2,871,594
	TOTAL			**3,039,065**	**3,021,538**	**3,008,211**	**3,001,717**	**3,003,567**
Free Cash Flow	Raw			(1,194,349)	(1,175,995)	(1,166,095)	(1,163,388)	(1,167,075)
	PV			(227,527)	(205,768)	(187,404)	(171,728)	(158,229)
Bond Amortization	Balance			3,863,034	(0)	(0)	(0)	(0)
	Principal			3,863,034	-	-	-	-
	Interest			154,521	-	-	-	-
	Payment			4,017,555	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			3,028,635	3,033,258	3,037,881	3,042,504	3,047,127
	Network operating expenses			3,009,209	3,015,930	3,022,651	3,029,372	3,036,092
	TOTAL			**6,056,094**	**6,067,437**	**6,078,781**	**6,090,125**	**6,101,469**
EBITDA				**1,308,169**	**1,296,825**	**1,285,482**	**1,274,138**	**1,262,794**
Tax Depreciation				2,977,731	2,991,690	3,005,287	3,019,888	3,036,036
EBIT				**(1,669,561)**	**(1,694,865)**	**(1,719,805)**	**(1,745,750)**	**(1,773,242)**
Interest				262,868	263,625	264,539	265,680	267,072
Income				**(1,932,429)**	**(1,958,490)**	**(1,984,344)**	**(2,011,430)**	**(2,040,315)**
Tax				(525,621)	(532,709)	(539,742)	(547,109)	(554,966)
Net Income				**(1,406,808)**	**(1,425,781)**	**(1,444,603)**	**(1,464,321)**	**(1,485,349)**

Unit	Item			Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment			-	-	-	-	-
	Success Based			131,973	131,973	131,973	131,973	131,973
	Network Capital Replacment			2,882,167	2,900,837	2,926,194	2,956,333	2,989,155
	TOTAL			**3,014,140**	**3,032,810**	**3,058,167**	**3,088,307**	**3,121,128**
Free Cash Flow	Raw			(1,180,350)	(1,203,275)	(1,232,944)	(1,267,060)	(1,303,368)
	PV			(146,984)	(137,625)	(129,523)	(122,257)	(115,509)
Bond Amortization	Balance			(0)	(0)	(0)	(0)	(0)
	Principal			-	-	-	-	-
	Interest			-	-	-	-	-
	Payment			-	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 30
Revenues	Data High			
		Subscription		6,673,900
		NRC		11,398
	Data Low			
		Subscription		-
		NRC		714
	Voice			
		Subscription		678,252
		NRC		-
Operational Costs	Voice expenses			8,347
	Customer Acquisition			
		Data High		3,799
		Data Low		48
		TOTAL		3,847
	Service Install			6,056
	Customer Operations, Advertising, G&A			3,051,750
	Network operating expenses			3,042,813
	TOTAL			**6,112,812**
EBITDA				**1,251,450**
Tax Depreciation				3,053,915
EBIT				**(1,802,465)**
Interest				268,703
Income				**(2,071,167)**
Tax				(563,358)
Net Income				**(1,507,810)**

Unit	Item			Year 30
Capital	Initial Deployment			-
	Success Based			131,973
	Network Capital Replacment			3,022,633
	TOTAL			**3,154,606**
Free Cash Flow	Raw			(1,339,798)
	PV			(109,058)
Bond Amortization	Balance			(0)
	Principal			-
	Interest			-
	Payment			-

C.2.2 Retail With Structure

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	1,697	4,382	5,637	6,086
			Bus	-	135	472	719	786
			Total	-	1,832	4,853	6,356	6,872
	Data High							
		Average	Res	-	1,606	4,147	5,335	5,759
			Bus	-	121	425	647	708
			Total	-	1,728	4,571	5,982	6,467
	Data Low							
		Average	Res	-	91	235	303	327
			Bus	-	13	47	72	79
			Total	-	104	282	375	405
	Voice							
		Average	Res	-	594	1,534	1,973	2,130
			Bus	-	47	165	252	275
			Total	-	641	1,699	2,225	2,405

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	70	70	70	70
			Bus	-	100	100	100	100
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Voice							
		Voice	Res	-	20	20	20	20
			Bus	-	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	6,528	6,969	7,162	7,176	7,176
			Bus	831	876	899	899	899
			Total	7,359	7,845	8,061	8,074	8,074
	Data High							
		Average	Res	6,177	6,596	6,778	6,790	6,790
			Bus	748	788	809	809	809
			Total	6,925	7,384	7,586	7,599	7,599
	Data Low							
		Average	Res	350	374	385	386	386
			Bus	83	88	90	90	90
			Total	433	461	475	476	476
	Voice							
		Average	Res	2,285	2,439	2,507	2,512	2,512
			Bus	291	307	314	314	314
			Total	2,576	2,746	2,821	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	7,176	7,176	7,176	7,176	7,176
			Bus	899	899	899	899	899
			Total	8,074	8,074	8,074	8,074	8,074
	Data High							
		Average	Res	6,790	6,790	6,790	6,790	6,790
			Bus	809	809	809	809	809
			Total	7,599	7,599	7,599	7,599	7,599
	Data Low							
		Average	Res	386	386	386	386	386
			Bus	90	90	90	90	90
			Total	476	476	476	476	476
	Voice							
		Average	Res	2,512	2,512	2,512	2,512	2,512
			Bus	314	314	314	314	314
			Total	2,826	2,826	2,826	2,826	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	7,176
			Bus	899
			Total	8,074
	Data High			
		Average	Res	6,790
			Bus	809
			Total	7,599
	Data Low			
		Average	Res	386
			Bus	90
			Total	476
	Voice			
		Average	Res	2,512
			Bus	314
			Total	2,826

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	70
			Bus	100
		NRC	Res	150
			Bus	150
	Data Low			
		Data Low	Res	-
			Bus	-
		NRC	Res	150
			Bus	150
	Voice			
		Voice	Res	20
			Bus	20
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High							
		Subscription		-	1,494,997	3,992,564	5,257,535	5,686,783
		NRC		-	520,924	341,524	97,489	66,689
	Data Low							
		Subscription		-	-	-	-	-
		NRC		-	31,500	22,412	6,252	4,177
	Voice							
		Subscription		-	153,909	407,682	533,923	577,257
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			-	1,894	5,017	6,571	7,104
	Customer Acquisition							
		Data High		-	173,641	113,841	32,496	22,230
		Data Low		-	2,100	1,494	417	278
		TOTAL		-	175,741	115,335	32,913	22,508
	Service Install			-	276,212	181,968	51,870	35,433
	Customer Operations, Advertising, G&A			-	1,916,218	2,419,942	2,639,661	2,729,057
	Network operating expenses			-	2,472,834	2,683,916	2,743,992	2,784,958
	TOTAL			**-**	**4,842,899**	**5,406,178**	**5,475,008**	**5,579,060**
EBITDA				-	(2,641,569)	(641,996)	420,191	755,847
Tax Depreciation				-	5,275,994	9,605,831	7,872,963	6,278,468
EBIT				-	(7,917,564)	(10,247,827)	(7,452,772)	(5,522,621)
Interest				-	1,939,708	1,939,708	1,939,708	1,939,708
Income				-	(9,857,272)	(12,187,535)	(9,392,480)	(7,462,330)
Tax				-	(118,287)	(146,250)	(112,710)	(89,548)
Net Income				-	(9,738,985)	(12,041,285)	(9,279,770)	(7,372,782)

Unit	Item			Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment			42,207,954	-	-	-	-
	Success Based			-	6,284,754	4,139,350	1,178,119	803,333
	Network Capital Replacment			-	496,690	736,327	979,125	1,205,087
	TOTAL			**42,207,954**	**6,781,444**	**4,875,677**	**2,157,244**	**2,008,420**
Free Cash Flow	Raw			-	(4,959,681)	(7,311,131)	(3,564,051)	(5,149,054)
	PV			-	(4,863,367)	(6,893,417)	(3,231,176)	(4,488,599)
Bond Amortization	Balance				48,492,708	48,492,708	48,492,708	48,492,708
	Principal				-	-	-	2,046,321
	Interest				1,939,708	1,939,708	1,939,708	1,939,708
	Payment				1,939,708	1,939,708	1,939,708	3,986,029

Financials

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High							
		Subscription		6,086,627	6,486,471	6,663,609	6,673,900	6,673,900
		NRC		91,002	68,065	15,055	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		5,462	4,261	1,120	714	714
	Voice							
		Subscription		618,133	659,008	677,108	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			7,607	8,110	8,333	8,347	8,347
	Customer Acquisition							
		Data High		30,334	22,688	5,018	3,799	3,799
		Data Low		364	284	75	48	48
		TOTAL		30,698	22,972	5,093	3,847	3,847
	Service Install			48,232	36,163	8,087	6,056	6,056
	Customer Operations, Advertising, G&A			2,825,150	2,911,591	2,943,430	2,949,656	2,953,759
	Network operating expenses			2,840,731	2,882,454	2,891,557	2,898,268	2,904,241
	TOTAL			**5,752,419**	**5,861,291**	**5,856,500**	**5,866,173**	**5,876,249**
EBITDA				**1,048,805**	**1,356,514**	**1,500,391**	**1,498,089**	**1,488,014**
Tax Depreciation				5,920,561	4,656,061	3,420,567	3,250,196	3,194,479
EBIT				**(4,871,756)**	**(3,299,546)**	**(1,920,176)**	**(1,752,107)**	**(1,706,465)**
Interest				1,857,855	1,772,729	1,684,197	1,592,123	1,496,367
Income				**(6,729,611)**	**(5,072,275)**	**(3,604,372)**	**(3,344,230)**	**(3,202,832)**
Tax				(80,755)	(60,867)	(43,252)	(40,131)	(38,434)
Net Income				**(6,648,856)**	**(5,011,407)**	**(3,561,120)**	**(3,304,099)**	**(3,164,398)**

Unit	Item			Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment			-	-	-	-	-
	Success Based			1,093,730	818,188	178,523	131,596	117,128
	Network Capital Replacment			1,430,176	1,657,121	1,876,506	2,079,044	2,265,389
	TOTAL			**2,523,906**	**2,475,309**	**2,055,029**	**2,210,640**	**2,382,517**
Free Cash Flow	Raw			(5,380,375)	(5,043,956)	(4,497,414)	(4,658,449)	(4,842,098)
	PV			(4,509,854)	(4,065,256)	(3,485,348)	(3,471,293)	(3,469,367)
Bond Amortization	Balance			46,446,387	44,318,214	42,104,913	39,803,081	37,409,175
	Principal			2,128,173	2,213,300	2,301,832	2,393,906	2,489,662
	Interest			1,857,855	1,772,729	1,684,197	1,592,123	1,496,367
	Payment			3,986,029	3,986,029	3,986,029	3,986,029	3,986,029

Financials

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			2,958,586	2,963,413	2,968,240	2,973,067	2,977,893
	Network operating expenses			2,911,268	2,918,294	2,925,321	2,932,348	2,939,375
	TOTAL			**5,888,103**	**5,899,957**	**5,911,810**	**5,923,664**	**5,935,518**
EBITDA				**1,476,160**	**1,464,306**	**1,452,452**	**1,440,599**	**1,428,745**
Tax Depreciation				3,285,768	3,413,758	3,540,440	3,690,192	3,850,983
EBIT				**(1,809,608)**	**(1,949,452)**	**(2,087,988)**	**(2,249,594)**	**(2,422,239)**
Interest				1,396,781	1,293,211	1,185,498	1,073,477	956,975
Income				**(3,206,388)**	**(3,242,662)**	**(3,273,486)**	**(3,323,070)**	**(3,379,213)**
Tax				(38,477)	(38,912)	(39,282)	(39,877)	(40,551)
Net Income				**(3,167,912)**	**(3,203,751)**	**(3,234,204)**	**(3,283,193)**	**(3,338,663)**

Unit	Item			Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment			-	-	-	-	-
	Success Based			137,797	137,797	137,797	137,797	137,797
	Network Capital Replacment			2,432,240	2,577,085	2,697,747	2,793,254	2,863,796
	TOTAL			**2,570,038**	**2,714,882**	**2,835,544**	**2,931,051**	**3,001,593**
Free Cash Flow	Raw			(5,041,430)	(5,197,693)	(5,329,839)	(5,436,605)	(5,518,326)
	PV			(3,473,258)	(3,443,187)	(3,394,929)	(3,329,745)	(3,249,805)
Bond Amortization	Balance			34,919,514	32,330,265	29,637,447	26,836,916	23,924,363
	Principal			2,589,248	2,692,818	2,800,531	2,912,552	3,029,054
	Interest			1,396,781	1,293,211	1,185,498	1,073,477	956,975
	Payment			3,986,029	3,986,029	3,986,029	3,986,029	3,986,029

Financials

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			2,982,720	2,987,547	2,992,374	2,997,201	3,002,028
	Network operating expenses			2,946,402	2,953,429	2,960,455	2,967,482	2,974,509
	TOTAL			**5,947,372**	**5,959,225**	**5,971,079**	**5,982,933**	**5,994,787**
EBITDA				**1,416,891**	**1,405,037**	**1,393,184**	**1,381,330**	**1,369,476**
Tax Depreciation				4,003,087	3,524,990	2,926,445	2,870,172	2,854,116
EBIT				**(2,586,196)**	**(2,119,952)**	**(1,533,262)**	**(1,488,842)**	**(1,484,640)**
Interest				835,812	709,804	578,755	442,464	300,721
Income				**(3,422,008)**	**(2,829,756)**	**(2,112,017)**	**(1,931,306)**	**(1,785,361)**
Tax				(41,064)	(33,957)	(25,344)	(23,176)	(21,424)
Net Income				**(3,380,944)**	**(2,795,799)**	**(2,086,672)**	**(1,908,130)**	**(1,763,937)**

Unit	Item			Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment			-	-	-	-	-
	Success Based			137,797	137,797	137,797	137,797	137,797
	Network Capital Replacment			2,910,768	2,936,717	2,945,180	2,940,434	2,925,532
	TOTAL			**3,048,565**	**3,074,514**	**3,082,978**	**3,078,231**	**3,063,329**
Free Cash Flow	Raw			(5,576,639)	(5,621,548)	(5,650,479)	(5,659,754)	(5,658,458)
	PV			(3,157,833)	(3,060,830)	(2,958,252)	(2,849,142)	(2,738,932)
Bond Amortization	Balance			20,895,309	17,745,093	14,468,867	11,061,593	7,518,028
	Principal			3,150,217	3,276,225	3,407,274	3,543,565	3,685,308
	Interest			835,812	709,804	578,755	442,464	300,721
	Payment			3,986,029	3,986,029	3,986,029	3,986,029	3,986,029

Financials

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			3,006,855	3,011,682	3,016,509	3,021,336	3,026,163
	Network operating expenses			2,981,536	2,988,563	2,995,590	3,002,616	3,009,643
	TOTAL			**6,006,640**	**6,018,494**	**6,030,348**	**6,042,201**	**6,054,055**
EBITDA				**1,357,622**	**1,345,769**	**1,333,915**	**1,322,061**	**1,310,207**
Tax Depreciation				2,877,154	2,908,455	2,924,534	2,939,895	2,963,153
EBIT				**(1,519,531)**	**(1,562,686)**	**(1,590,619)**	**(1,617,834)**	**(1,652,946)**
Interest				153,309	-	-	-	-
Income				**(1,672,840)**	**(1,562,686)**	**(1,590,619)**	**(1,617,834)**	**(1,652,946)**
Tax				(20,074)	(18,752)	(19,087)	(19,414)	(19,835)
Net Income				**(1,652,766)**	**(1,543,934)**	**(1,571,532)**	**(1,598,420)**	**(1,633,111)**

Unit	Item			Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment			-	-	-	-	-
	Success Based			137,797	137,797	137,797	137,797	137,797
	Network Capital Replacment			2,907,874	2,890,694	2,877,615	2,871,287	2,873,241
	TOTAL			**3,045,671**	**3,028,491**	**3,015,412**	**3,009,084**	**3,011,038**
Free Cash Flow	Raw			(5,654,003)	(1,663,970)	(1,662,410)	(1,667,609)	(1,680,996)
	PV			(2,631,516)	(744,667)	(715,354)	(689,992)	(668,780)
Bond Amortization	Balance			3,832,720	(0)	(0)	(0)	(0)
	Principal			3,832,720	-	-	-	-
	Interest			153,309	-	-	-	-
	Payment			3,986,029	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High							
		Subscription		6,673,900	6,673,900	6,673,900	6,673,900	6,673,900
		NRC		11,398	11,398	11,398	11,398	11,398
	Data Low							
		Subscription		-	-	-	-	-
		NRC		714	714	714	714	714
	Voice							
		Subscription		678,252	678,252	678,252	678,252	678,252
		NRC		-	-	-	-	-
Operational Costs	Voice expenses			8,347	8,347	8,347	8,347	8,347
	Customer Acquisition							
		Data High		3,799	3,799	3,799	3,799	3,799
		Data Low		48	48	48	48	48
		TOTAL		3,847	3,847	3,847	3,847	3,847
	Service Install			6,056	6,056	6,056	6,056	6,056
	Customer Operations, Advertising, G&A			3,030,990	3,035,816	3,040,643	3,045,470	3,050,297
	Network operating expenses			3,016,670	3,023,697	3,030,724	3,037,750	3,044,777
	TOTAL			**6,065,909**	**6,077,763**	**6,089,616**	**6,101,470**	**6,113,324**
EBITDA				**1,298,354**	**1,286,500**	**1,274,646**	**1,262,793**	**1,250,939**
Tax Depreciation				2,983,373	2,997,670	3,011,551	3,026,404	3,042,785
EBIT				**(1,685,019)**	**(1,711,170)**	**(1,736,904)**	**(1,763,611)**	**(1,791,846)**
Interest				-	-	-	-	-
Income				**(1,685,019)**	**(1,711,170)**	**(1,736,904)**	**(1,763,611)**	**(1,791,846)**
Tax				(20,220)	(20,534)	(20,843)	(21,163)	(21,502)
Net Income				**(1,664,799)**	**(1,690,636)**	**(1,716,061)**	**(1,742,448)**	**(1,770,344)**

Unit	Item			Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment			-	-	-	-	-
	Success Based			137,797	137,797	137,797	137,797	137,797
	Network Capital Replacment			2,883,885	2,902,617	2,928,052	2,958,303	2,991,282
	TOTAL			**3,021,682**	**3,040,415**	**3,065,849**	**3,096,100**	**3,129,079**
Free Cash Flow	Raw			(1,703,108)	(1,733,380)	(1,770,360)	(1,812,144)	(1,856,638)
	PV			(651,517)	(637,593)	(626,150)	(616,277)	(607,124)
Bond Amortization	Balance			(0)	(0)	(0)	(0)	(0)
	Principal			-	-	-	-	-
	Interest			-	-	-	-	-
	Payment			-	-	-	-	-

Financials

Unit	Product	Measure	Res/Bus/Total	Year 30
Revenues	Data High			
		Subscription		6,673,900
		NRC		11,398
	Data Low			
		Subscription		-
		NRC		714
	Voice			
		Subscription		678,252
		NRC		-
Operational Costs	Voice expenses			8,347
	Customer Acquisition			
		Data High		3,799
		Data Low		48
		TOTAL		3,847
	Service Install			6,056
	Customer Operations, Advertising, G&A			3,055,124
	Network operating expenses			3,051,804
	TOTAL			**6,125,178**
EBITDA				**1,239,085**
Tax Depreciation				3,060,886
EBIT				**(1,821,801)**
Interest				-
Income				**(1,821,801)**
Tax				(21,862)
Net Income				**(1,799,940)**

Unit	Item			Year 30
Capital	Initial Deployment			-
	Success Based			137,797
	Network Capital Replacment			3,024,968
	TOTAL			**3,162,765**
Free Cash Flow	Raw			(1,901,818)
	PV			(597,978)
Bond Amortization	Balance			(0)
	Principal			-
	Interest			-
	Payment			-

C.2.3 Open Access

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	19,208	19,208	19,208	19,208
			Bus	-	2,411	2,411	2,411	2,411
			Total	-	21,619	21,619	21,619	21,619
	Data High							
		Average	Res	-	2,011	5,190	6,677	7,208
			Bus	-	155	541	825	902
			Total	-	2,165	5,731	7,501	8,110
	Data Low							
		Average	Res	-	19,208	19,208	19,208	19,208
			Bus	-	2,411	2,411	2,411	2,411
			Total	-	21,619	21,619	21,619	21,619
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	15	15	15	15
			Bus	-	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	-	58	58	58	58
			Bus	-	58	58	58	58
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Data High							
		Average	Res	7,732	8,255	8,482	8,497	8,497
			Bus	953	1,005	1,031	1,031	1,031
			Total	8,685	9,260	9,513	9,528	9,528
	Data Low							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	58	58	58	58	58
			Bus	58	58	58	58	58
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Data High							
		Average	Res	8,497	8,497	8,497	8,497	8,497
			Bus	1,031	1,031	1,031	1,031	1,031
			Total	9,528	9,528	9,528	9,528	9,528
	Data Low							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	58	58	58	58	58
			Bus	58	58	58	58	58
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Data High							
		Average	Res	8,497	8,497	8,497	8,497	8,497
			Bus	1,031	1,031	1,031	1,031	1,031
			Total	9,528	9,528	9,528	9,528	9,528
	Data Low							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	58	58	58	58	58
			Bus	58	58	58	58	58
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Data High							
		Average	Res	8,497	8,497	8,497	8,497	8,497
			Bus	1,031	1,031	1,031	1,031	1,031
			Total	9,528	9,528	9,528	9,528	9,528
	Data Low							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	58	58	58	58	58
			Bus	58	58	58	58	58
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Data High							
		Average	Res	8,497	8,497	8,497	8,497	8,497
			Bus	1,031	1,031	1,031	1,031	1,031
			Total	9,528	9,528	9,528	9,528	9,528
	Data Low							
		Average	Res	19,208	19,208	19,208	19,208	19,208
			Bus	2,411	2,411	2,411	2,411	2,411
			Total	21,619	21,619	21,619	21,619	21,619
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	15	15	15	15	15
			Bus	15	15	15	15	15
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	58	58	58	58	58
			Bus	58	58	58	58	58
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	19,208
			Bus	2,411
			Total	21,619
	Data High			
		Average	Res	8,497
			Bus	1,031
			Total	9,528
	Data Low			
		Average	Res	19,208
			Bus	2,411
			Total	21,619
	Voice			
		Average	Res	-
			Bus	-
			Total	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	15
			Bus	15
		NRC	Res	-
			Bus	-
	Data Low			
		Data Low	Res	58
			Bus	58
		NRC	Res	-
			Bus	-
	Voice			
		Voice	Res	-
			Bus	-
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High						
		Subscription	-	389,757	1,031,565	1,350,248	1,459,757
		NRC	-	-	-	-	-
	Data Low						
		Subscription	-	15,028,504	15,028,504	15,028,504	15,028,504
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		-	16,214	16,214	16,214	16,214
	Customer Operations, Advertising, G&A		-	2,292,683	2,298,420	2,304,128	2,309,807
	Network operating expenses		-	3,987,705	4,004,119	4,020,451	4,036,699
	TOTAL		**-**	**6,296,602**	**6,318,754**	**6,340,793**	**6,362,720**
EBITDA			**-**	**9,121,660**	**9,741,315**	**10,037,959**	**10,125,541**
Tax Depreciation			-	5,749,103	13,809,252	13,643,202	9,675,023
EBIT			**-**	**3,372,556**	**(4,067,937)**	**(3,605,243)**	**450,517**
Interest			-	3,183,101	3,183,101	3,183,101	3,183,101
Income			**-**	**189,455**	**(7,251,037)**	**(6,788,344)**	**(2,732,583)**
Tax			-	1,705	(65,259)	(61,095)	(24,593)
Net Income			**-**	**187,750**	**(7,185,778)**	**(6,727,249)**	**(2,707,990)**

Unit	Item	Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment	45,992,827	-	-	-	-
	Success Based	-	33,584,693	327,566	325,904	324,241
	Network Capital Replacment	-	541,229	1,116,980	1,437,275	1,763,125
	TOTAL	**45,992,827**	**34,125,923**	**1,444,547**	**1,763,179**	**2,087,366**
Free Cash Flow	Raw	-	5,395,624	5,178,927	5,152,775	1,521,614
	PV	-	5,290,845	4,883,035	4,671,516	1,326,440
Bond Amortization	Balance		79,577,520	79,577,520	79,577,520	79,577,520
	Principal		-	-	-	3,358,054
	Interest		3,183,101	3,183,101	3,183,101	3,183,101
	Payment		3,183,101	3,183,101	3,183,101	6,541,155

Financials

Unit	Product	Measure	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High						
		Subscription	1,563,298	1,666,840	1,712,373	1,715,031	1,715,031
		NRC	-	-	-	-	-
	Data Low						
		Subscription	15,028,504	15,028,504	15,028,504	15,028,504	15,028,504
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		16,214	16,214	16,214	16,214	16,214
	Customer Operations, Advertising, G&A		2,315,457	2,321,078	2,326,669	2,332,232	2,337,183
	Network operating expenses		4,052,863	4,068,945	4,084,943	4,100,857	4,115,022
	TOTAL		**6,384,535**	**6,406,237**	**6,427,826**	**6,449,303**	**6,468,419**
EBITDA			**10,207,268**	**10,289,107**	**10,313,051**	**10,294,232**	**10,275,116**
Tax Depreciation			8,349,551	7,023,479	4,836,899	4,094,826	4,364,739
EBIT			**1,857,717**	**3,265,628**	**5,476,152**	**6,199,405**	**5,910,377**
Interest			3,048,779	2,909,084	2,763,801	2,612,707	2,455,569
Income			**(1,191,062)**	**356,544**	**2,712,351**	**3,586,699**	**3,454,808**
Tax			(10,720)	3,209	24,411	32,280	31,093
Net Income			**(1,180,342)**	**353,335**	**2,687,940**	**3,554,419**	**3,423,715**

Unit	Item	Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment	-	-	-	-	-
	Success Based	322,578	320,915	319,252	317,590	282,671
	Network Capital Replacment	2,089,444	2,410,639	2,720,810	3,013,999	3,284,494
	TOTAL	**2,412,022**	**2,731,554**	**3,040,063**	**3,331,589**	**3,567,166**
Free Cash Flow	Raw	1,264,811	1,013,189	707,423	389,208	135,702
	PV	1,060,170	816,596	548,229	290,022	97,231
Bond Amortization	Balance	76,219,467	72,727,091	69,095,020	65,317,666	61,389,218
	Principal	3,492,376	3,632,071	3,777,354	3,928,448	4,085,586
	Interest	3,048,779	2,909,084	2,763,801	2,612,707	2,455,569
	Payment	6,541,155	6,541,155	6,541,155	6,541,155	6,541,155

Financials

Unit	Product	Measure	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High						
		Subscription	1,715,031	1,715,031	1,715,031	1,715,031	1,715,031
		NRC	-	-	-	-	-
	Data Low						
		Subscription	15,028,504	15,028,504	15,028,504	15,028,504	15,028,504
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		16,214	16,214	16,214	16,214	16,214
	Customer Operations, Advertising, G&A		2,343,007	2,348,832	2,354,656	2,360,481	2,366,305
	Network operating expenses		4,131,687	4,148,352	4,165,016	4,181,681	4,198,345
	TOTAL		**6,490,908**	**6,513,398**	**6,535,887**	**6,558,376**	**6,580,865**
EBITDA			**10,252,627**	**10,230,137**	**10,207,648**	**10,185,159**	**10,162,670**
Tax Depreciation			4,628,995	4,895,677	5,161,534	5,414,759	5,654,903
EBIT			**5,623,631**	**5,334,460**	**5,046,114**	**4,770,400**	**4,507,767**
Interest			2,292,145	2,122,185	1,945,426	1,761,597	1,570,415
Income			**3,331,486**	**3,212,275**	**3,100,688**	**3,008,803**	**2,937,352**
Tax			29,983	28,910	27,906	27,079	26,436
Net Income			**3,301,503**	**3,183,365**	**3,072,782**	**2,981,724**	**2,910,916**

Unit	Item	Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment	-	-	-	-	-
	Success Based	332,555	332,555	332,555	332,555	332,555
	Network Capital Replacment	3,526,770	3,737,483	3,913,278	4,052,724	4,156,091
	TOTAL	**3,859,325**	**4,070,037**	**4,245,833**	**4,385,278**	**4,488,646**
Free Cash Flow	Raw	(177,836)	(409,965)	(607,245)	(768,353)	(893,567)
	PV	(122,519)	(271,579)	(386,795)	(470,591)	(526,232)
Bond Amortization	Balance	57,303,632	53,054,623	48,635,653	44,039,925	39,260,367
	Principal	4,249,009	4,418,970	4,595,728	4,779,558	4,970,740
	Interest	2,292,145	2,122,185	1,945,426	1,761,597	1,570,415
	Payment	6,541,155	6,541,155	6,541,155	6,541,155	6,541,155

Financials

Unit	Product	Measure	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High						
		Subscription	1,715,031	1,715,031	1,715,031	1,715,031	1,715,031
		NRC	-	-	-	-	-
	Data Low						
		Subscription	15,028,504	15,028,504	15,028,504	15,028,504	15,028,504
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		16,214	16,214	16,214	16,214	16,214
	Customer Operations, Advertising, G&A		2,372,130	2,377,955	2,383,779	2,389,604	2,395,428
	Network operating expenses		4,215,010	4,231,675	4,248,339	4,265,004	4,281,669
	TOTAL		**6,603,354**	**6,625,844**	**6,648,333**	**6,670,822**	**6,693,311**
EBITDA			**10,140,181**	**10,117,692**	**10,095,202**	**10,072,713**	**10,050,224**
Tax Depreciation			5,880,789	5,415,568	4,422,372	4,067,341	4,136,052
EBIT			**4,259,392**	**4,702,124**	**5,672,831**	**6,005,373**	**5,914,172**
Interest			1,371,585	1,164,802	949,748	726,092	493,489
Income			**2,887,807**	**3,537,321**	**4,723,083**	**5,279,281**	**5,420,683**
Tax			25,990	31,836	42,508	47,514	48,786
Net Income			**2,861,817**	**3,505,485**	**4,680,575**	**5,231,767**	**5,371,896**

Unit	Item	Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment	-	-	-	-	-
	Success Based	332,555	332,555	332,555	332,555	332,555
	Network Capital Replacment	4,225,428	4,264,481	4,278,464	4,273,687	4,253,139
	TOTAL	**4,557,983**	**4,597,036**	**4,611,019**	**4,606,241**	**4,585,694**
Free Cash Flow	Raw	(984,947)	(1,052,335)	(1,099,479)	(1,122,196)	(1,125,411)
	PV	(557,737)	(572,977)	(575,621)	(564,918)	(544,746)
Bond Amortization	Balance	34,289,627	29,120,058	23,743,706	18,152,299	12,337,237
	Principal	5,169,569	5,376,352	5,591,406	5,815,063	6,047,665
	Interest	1,371,585	1,164,802	949,748	726,092	493,489
	Payment	6,541,155	6,541,155	6,541,155	6,541,155	6,541,155

Financials

Unit	Product	Measure	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High						
		Subscription	1,715,031	1,715,031	1,715,031	1,715,031	1,715,031
		NRC	-	-	-	-	-
	Data Low						
		Subscription	15,028,504	15,028,504	15,028,504	15,028,504	15,028,504
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		16,214	16,214	16,214	16,214	16,214
	Customer Operations, Advertising, G&A		2,401,253	2,407,077	2,412,902	2,418,726	2,424,551
	Network operating expenses		4,298,333	4,314,998	4,331,662	4,348,327	4,364,992
	TOTAL		**6,715,800**	**6,738,289**	**6,760,779**	**6,783,268**	**6,805,757**
EBITDA			**10,027,735**	**10,005,246**	**9,982,757**	**9,960,267**	**9,937,778**
Tax Depreciation			4,195,968	4,286,255	4,351,978	4,392,751	4,434,668
EBIT			**5,831,767**	**5,718,991**	**5,630,779**	**5,567,516**	**5,503,111**
Interest			251,583	-	-	-	-
Income			**5,580,184**	**5,718,991**	**5,630,779**	**5,567,516**	**5,503,111**
Tax			50,222	51,471	50,677	50,108	49,528
Net Income			**5,529,963**	**5,667,520**	**5,580,102**	**5,517,408**	**5,453,583**

Unit	Item	Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment	-	-	-	-	-
	Success Based	332,555	332,555	332,555	332,555	332,555
	Network Capital Replacment	4,230,276	4,208,840	4,194,157	4,190,092	4,198,826
	TOTAL	**4,562,831**	**4,541,394**	**4,526,712**	**4,522,646**	**4,531,381**
Free Cash Flow	Raw	(1,126,472)	5,412,380	5,405,368	5,387,514	5,356,869
	PV	(524,289)	2,422,171	2,325,993	2,229,145	2,131,217
Bond Amortization	Balance	6,289,572	(0)	(0)	(0)	(0)
	Principal	6,289,572	-	-	-	-
	Interest	251,583	-	-	-	-
	Payment	6,541,155	-	-	-	-

Financials

Unit	Product	Measure	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High						
		Subscription	1,715,031	1,715,031	1,715,031	1,715,031	1,715,031
		NRC	-	-	-	-	-
	Data Low						
		Subscription	15,028,504	15,028,504	15,028,504	15,028,504	15,028,504
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		16,214	16,214	16,214	16,214	16,214
	Customer Operations, Advertising, G&A		2,430,375	2,436,200	2,442,025	2,447,849	2,453,674
	Network operating expenses		4,381,656	4,398,321	4,414,986	4,431,650	4,448,315
	TOTAL		**6,828,246**	**6,850,735**	**6,873,224**	**6,895,714**	**6,918,203**
EBITDA			**9,915,289**	**9,892,800**	**9,870,311**	**9,847,822**	**9,825,332**
Tax Depreciation			4,471,762	4,496,775	4,521,463	4,548,108	4,577,407
EBIT			**5,443,527**	**5,396,025**	**5,348,847**	**5,299,714**	**5,247,925**
Interest			-	-	-	-	-
Income			**5,443,527**	**5,396,025**	**5,348,847**	**5,299,714**	**5,247,925**
Tax			48,992	48,564	48,140	47,697	47,231
Net Income			**5,394,535**	**5,347,461**	**5,300,708**	**5,252,017**	**5,200,694**

Unit	Item	Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment	-	-	-	-	-
	Success Based	332,555	332,555	332,555	332,555	332,555
	Network Capital Replacment	4,220,849	4,255,135	4,299,487	4,350,974	4,406,389
	TOTAL	**4,553,404**	**4,587,690**	**4,632,042**	**4,683,529**	**4,738,944**
Free Cash Flow	Raw	5,312,894	5,256,546	5,190,129	5,116,595	5,039,157
	PV	2,032,424	1,933,527	1,835,670	1,740,060	1,647,812
Bond Amortization	Balance	(0)	(0)	(0)	(0)	(0)
	Principal	-	-	-	-	-
	Interest	-	-	-	-	-
	Payment	-	-	-	-	-

Financials

Unit	Product	Measure	Year 30
Revenues	Data High		
		Subscription	1,715,031
		NRC	-
	Data Low		
		Subscription	15,028,504
		NRC	-
	Voice		
		Subscription	-
		NRC	-
Operational Costs	Voice expenses		-
	Customer Acquisition		
		Data High	-
		Data Low	-
		TOTAL	-
	Service Install		16,214
	Customer Operations, Advertising, G&A		2,459,498
	Network operating expenses		4,464,979
	TOTAL		**6,940,692**
EBITDA			**9,802,843**
Tax Depreciation			4,609,574
EBIT			**5,193,269**
Interest			-
Income			**5,193,269**
Tax			46,739
Net Income			**5,146,530**

Unit	Item	Year 30
Capital	Initial Deployment	-
	Success Based	332,555
	Network Capital Replacment	4,462,662
	TOTAL	**4,795,217**
Free Cash Flow	Raw	4,960,887
	PV	1,559,825
Bond Amortization	Balance	(0)
	Principal	-
	Interest	-
	Payment	-

C.2.4 Dark Fiber

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	2,549	6,580	8,465	9,139
			Bus	-	206	721	1,099	1,202
			Total	-	2,755	7,301	9,565	10,341
	Data High							
		Average	Res	-	2,413	6,228	8,012	8,649
			Bus	-	186	649	989	1,082
			Total	-	2,598	6,877	9,002	9,732
	Data Low							
		Average	Res	-	2,549	6,580	8,465	9,139
			Bus	-	206	721	1,099	1,202
			Total	-	2,755	7,301	9,565	10,341
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	5	5	5	5
			Bus	-	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	-	47	47	47	47
			Bus	-	47	47	47	47
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	9,802	10,466	10,755	10,775	10,775
			Bus	1,271	1,340	1,374	1,374	1,374
			Total	11,074	11,806	12,129	12,149	12,149
	Data High							
		Average	Res	9,278	9,906	10,179	10,197	10,197
			Bus	1,144	1,206	1,237	1,237	1,237
			Total	10,422	11,112	11,416	11,434	11,434
	Data Low							
		Average	Res	9,802	10,466	10,755	10,775	10,775
			Bus	1,271	1,340	1,374	1,374	1,374
			Total	11,074	11,806	12,129	12,149	12,149
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	47	47	47	47	47
			Bus	47	47	47	47	47
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Data High							
		Average	Res	10,197	10,197	10,197	10,197	10,197
			Bus	1,237	1,237	1,237	1,237	1,237
			Total	11,434	11,434	11,434	11,434	11,434
	Data Low							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	47	47	47	47	47
			Bus	47	47	47	47	47
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Data High							
		Average	Res	10,197	10,197	10,197	10,197	10,197
			Bus	1,237	1,237	1,237	1,237	1,237
			Total	11,434	11,434	11,434	11,434	11,434
	Data Low							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	47	47	47	47	47
			Bus	47	47	47	47	47
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Data High							
		Average	Res	10,197	10,197	10,197	10,197	10,197
			Bus	1,237	1,237	1,237	1,237	1,237
			Total	11,434	11,434	11,434	11,434	11,434
	Data Low							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	47	47	47	47	47
			Bus	47	47	47	47	47
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Data High							
		Average	Res	10,197	10,197	10,197	10,197	10,197
			Bus	1,237	1,237	1,237	1,237	1,237
			Total	11,434	11,434	11,434	11,434	11,434
	Data Low							
		Average	Res	10,775	10,775	10,775	10,775	10,775
			Bus	1,374	1,374	1,374	1,374	1,374
			Total	12,149	12,149	12,149	12,149	12,149
	Voice							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	5	5	5	5	5
			Bus	5	5	5	5	5
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Data Low							
		Data Low	Res	47	47	47	47	47
			Bus	47	47	47	47	47
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-
	Voice							
		Voice	Res	-	-	-	-	-
			Bus	-	-	-	-	-
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	10,775
			Bus	1,374
			Total	12,149
	Data High			
		Average	Res	10,197
			Bus	1,237
			Total	11,434
	Data Low			
		Average	Res	10,775
			Bus	1,374
			Total	12,149
	Voice			
		Average	Res	-
			Bus	-
			Total	-

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	5
			Bus	5
		NRC	Res	-
			Bus	-
	Data Low			
		Data Low	Res	47
			Bus	47
		NRC	Res	-
			Bus	-
	Voice			
		Voice	Res	-
			Bus	-
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High						
		Subscription	-	155,903	412,626	540,099	583,903
		NRC	-	-	-	-	-
	Data Low						
		Subscription	-	1,538,926	4,078,037	5,342,279	5,775,975
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		-	-	-	-	-
	Customer Operations, Advertising, G&A		-	176,384	230,364	257,241	266,461
	Network operating expenses		-	1,941,816	1,941,816	1,941,816	1,941,816
	TOTAL		**-**	**2,118,200**	**2,172,180**	**2,199,057**	**2,208,277**
EBITDA			**-**	**(423,371)**	**2,318,483**	**3,683,321**	**4,151,601**
Tax Depreciation			-	5,126,719	8,570,684	5,871,259	4,242,972
EBIT			**-**	**(5,550,091)**	**(6,252,200)**	**(2,187,938)**	**(91,372)**
Interest			-	1,640,550	1,640,550	1,640,550	1,640,550
Income			**-**	**(7,190,641)**	**(7,892,750)**	**(3,828,488)**	**(1,731,922)**
Tax			-	(64,716)	(71,035)	(34,456)	(15,587)
Net Income			**-**	**(7,125,925)**	**(7,821,716)**	**(3,794,032)**	**(1,716,335)**

Unit	Item	Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment	41,013,754	-	-	-	-
	Success Based	-	-	-	-	-
	Network Capital Replacment	-	482,637	643,629	808,253	974,050
	TOTAL	**41,013,754**	**482,637**	**643,629**	**808,253**	**974,050**
Free Cash Flow	Raw	-	(2,481,843)	105,338	1,268,974	(178,132)
	PV	-	(2,433,647)	99,320	1,150,454	(155,283)
Bond Amortization	Balance		41,013,754	41,013,754	41,013,754	41,013,754
	Principal		-	-	-	1,730,720
	Interest		1,640,550	1,640,550	1,640,550	1,640,550
	Payment		1,640,550	1,640,550	1,640,550	3,371,270

Financials

Unit	Product	Measure	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High						
		Subscription	625,319	666,736	684,949	686,012	686,012
		NRC	-	-	-	-	-
	Data Low						
		Subscription	6,184,984	6,593,993	6,774,629	6,785,625	6,785,625
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		-	-	-	-	-
	Customer Operations, Advertising, G&A		275,156	283,852	287,692	287,926	287,926
	Network operating expenses		1,941,816	1,941,816	1,941,816	1,941,816	1,941,816
	TOTAL		**2,216,972**	**2,225,667**	**2,229,508**	**2,229,741**	**2,229,741**
EBITDA			**4,593,331**	**5,035,061**	**5,230,071**	**5,241,896**	**5,241,896**
Tax Depreciation			4,208,673	3,021,694	1,909,464	2,039,386	2,172,731
EBIT			**384,658**	**2,013,368**	**3,320,607**	**3,202,510**	**3,069,166**
Interest			1,571,321	1,499,323	1,424,446	1,346,573	1,265,585
Income			**(1,186,663)**	**514,044**	**1,896,161**	**1,855,938**	**1,803,581**
Tax			(10,680)	4,626	17,065	16,703	16,232
Net Income			**(1,175,983)**	**509,418**	**1,879,096**	**1,839,234**	**1,787,349**

Unit	Item	Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment	-	-	-	-	-
	Success Based	-	-	-	-	-
	Network Capital Replacment	1,138,259	1,297,907	1,449,921	1,591,270	1,719,133
	TOTAL	**1,138,259**	**1,297,907**	**1,449,921**	**1,591,270**	**1,719,133**
Free Cash Flow	Raw	94,482	361,258	391,815	262,653	135,261
	PV	79,195	291,161	303,644	195,719	96,915
Bond Amortization	Balance	39,283,034	37,483,085	35,611,139	33,664,315	31,639,617
	Principal	1,799,949	1,871,947	1,946,824	2,024,697	2,105,685
	Interest	1,571,321	1,499,323	1,424,446	1,346,573	1,265,585
	Payment	3,371,270	3,371,270	3,371,270	3,371,270	3,371,270

Financials

Unit	Product	Measure	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High						
		Subscription	686,012	686,012	686,012	686,012	686,012
		NRC	-	-	-	-	-
	Data Low						
		Subscription	6,785,625	6,785,625	6,785,625	6,785,625	6,785,625
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		-	-	-	-	-
	Customer Operations, Advertising, G&A		287,926	287,926	287,926	287,926	287,926
	Network operating expenses		1,941,816	1,941,816	1,941,816	1,941,816	1,941,816
	TOTAL		**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**
EBITDA			**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**
Tax Depreciation			2,301,382	2,431,492	2,552,967	2,670,177	2,779,648
EBIT			**2,940,514**	**2,810,404**	**2,688,929**	**2,571,719**	**2,462,248**
Interest			1,181,357	1,093,761	1,002,660	907,916	809,382
Income			**1,759,157**	**1,716,643**	**1,686,269**	**1,663,803**	**1,652,867**
Tax			15,832	15,450	15,176	14,974	14,876
Net Income			**1,743,324**	**1,701,193**	**1,671,092**	**1,648,829**	**1,637,991**

Unit	Item	Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment	-	-	-	-	-
	Success Based	-	-	-	-	-
	Network Capital Replacment	1,831,074	1,925,218	2,000,407	2,056,330	2,093,587
	TOTAL	**1,831,074**	**1,925,218**	**2,000,407**	**2,056,330**	**2,093,587**
Free Cash Flow	Raw	23,720	(70,041)	(144,957)	(200,677)	(237,836)
	PV	16,342	(46,398)	(92,333)	(122,908)	(140,064)
Bond Amortization	Balance	29,533,932	27,344,019	25,066,510	22,697,901	20,234,547
	Principal	2,189,913	2,277,509	2,368,610	2,463,354	2,561,888
	Interest	1,181,357	1,093,761	1,002,660	907,916	809,382
	Payment	3,371,270	3,371,270	3,371,270	3,371,270	3,371,270

Financials

Unit	Product	Measure	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High						
		Subscription	686,012	686,012	686,012	686,012	686,012
		NRC	-	-	-	-	-
	Data Low						
		Subscription	6,785,625	6,785,625	6,785,625	6,785,625	6,785,625
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		-	-	-	-	-
	Customer Operations, Advertising, G&A		287,926	287,926	287,926	287,926	287,926
	Network operating expenses		1,941,816	1,941,816	1,941,816	1,941,816	1,941,816
	TOTAL		**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**
EBITDA			**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**
Tax Depreciation			2,880,339	2,370,843	1,836,713	1,893,264	1,937,188
EBIT			**2,361,557**	**2,871,053**	**3,405,184**	**3,348,632**	**3,304,709**
Interest			706,906	600,332	489,494	374,223	254,341
Income			**1,654,651**	**2,270,721**	**2,915,690**	**2,974,409**	**3,050,367**
Tax			14,892	20,436	26,241	26,770	27,453
Net Income			**1,639,759**	**2,250,285**	**2,889,448**	**2,947,639**	**3,022,914**

Unit	Item	Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment	-	-	-	-	-
	Success Based	-	-	-	-	-
	Network Capital Replacment	2,113,698	2,119,022	2,112,605	2,097,952	2,078,743
	TOTAL	**2,113,698**	**2,119,022**	**2,112,605**	**2,097,952**	**2,078,743**
Free Cash Flow	Raw	(257,963)	(268,832)	(268,220)	(254,095)	(235,570)
	PV	(146,074)	(146,374)	(140,424)	(127,913)	(114,026)
Bond Amortization	Balance	17,672,658	15,008,295	12,237,357	9,355,581	6,358,534
	Principal	2,664,364	2,770,938	2,881,776	2,997,047	3,116,929
	Interest	706,906	600,332	489,494	374,223	254,341
	Payment	3,371,270	3,371,270	3,371,270	3,371,270	3,371,270

Financials

Unit	Product	Measure	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High						
		Subscription	686,012	686,012	686,012	686,012	686,012
		NRC	-	-	-	-	-
	Data Low						
		Subscription	6,785,625	6,785,625	6,785,625	6,785,625	6,785,625
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		-	-	-	-	-
	Customer Operations, Advertising, G&A		287,926	287,926	287,926	287,926	287,926
	Network operating expenses		1,941,816	1,941,816	1,941,816	1,941,816	1,941,816
	TOTAL		**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**
EBITDA			**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**
Tax Depreciation			1,969,857	1,993,021	2,008,665	2,018,839	2,025,505
EBIT			**3,272,040**	**3,248,875**	**3,233,232**	**3,223,057**	**3,216,391**
Interest			129,664	-	-	-	-
Income			**3,142,375**	**3,248,875**	**3,233,232**	**3,223,057**	**3,216,391**
Tax			28,281	29,240	29,099	29,008	28,948
Net Income			**3,114,094**	**3,219,635**	**3,204,132**	**3,194,050**	**3,187,443**

Unit	Item	Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment	-	-	-	-	-
	Success Based	-	-	-	-	-
	Network Capital Replacment	2,058,532	2,040,446	2,026,944	2,019,647	2,019,269
	TOTAL	**2,058,532**	**2,040,446**	**2,026,944**	**2,019,647**	**2,019,269**
Free Cash Flow	Raw	(216,187)	3,172,211	3,185,853	3,193,242	3,193,679
	PV	(100,619)	1,419,641	1,370,910	1,321,240	1,270,597
Bond Amortization	Balance	3,241,606	-	-	-	-
	Principal	3,241,606	-	-	-	-
	Interest	129,664	-	-	-	-
	Payment	3,371,270	-	-	-	-

Financials

Unit	Product	Measure	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High						
		Subscription	686,012	686,012	686,012	686,012	686,012
		NRC	-	-	-	-	-
	Data Low						
		Subscription	6,785,625	6,785,625	6,785,625	6,785,625	6,785,625
		NRC	-	-	-	-	-
	Voice						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	-	-	-	-
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	-	-	-	-
		TOTAL	-	-	-	-	-
	Service Install		-	-	-	-	-
	Customer Operations, Advertising, G&A		287,926	287,926	287,926	287,926	287,926
	Network operating expenses		1,941,816	1,941,816	1,941,816	1,941,816	1,941,816
	TOTAL		**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**	**2,229,741**
EBITDA			**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**	**5,241,896**
Tax Depreciation			2,030,393	2,034,893	2,040,004	2,046,321	2,054,080
EBIT			**3,211,504**	**3,207,004**	**3,201,893**	**3,195,575**	**3,187,817**
Interest			-	-	-	-	-
Income			**3,211,504**	**3,207,004**	**3,201,893**	**3,195,575**	**3,187,817**
Tax			28,904	28,863	28,817	28,760	28,690
Net Income			**3,182,600**	**3,178,141**	**3,173,076**	**3,166,815**	**3,159,126**

Unit	Item	Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment	-	-	-	-	-
	Success Based	-	-	-	-	-
	Network Capital Replacment	2,025,664	2,037,960	2,054,774	2,074,448	2,095,292
	TOTAL	**2,025,664**	**2,037,960**	**2,054,774**	**2,074,448**	**2,095,292**
Free Cash Flow	Raw	3,187,329	3,175,073	3,158,306	3,138,688	3,117,914
	PV	1,219,299	1,167,894	1,117,045	1,067,410	1,019,563
Bond Amortization	Balance	-	-	-	-	-
	Principal	-	-	-	-	-
	Interest	-	-	-	-	-
	Payment	-	-	-	-	-

Financials

Unit	Product	Measure	Year 30
Revenues	Data High		
		Subscription	686,012
		NRC	-
	Data Low		
		Subscription	6,785,625
		NRC	-
	Voice		
		Subscription	-
		NRC	-
Operational Costs	Voice expenses		-
	Customer Acquisition		
		Data High	-
		Data Low	-
		TOTAL	-
	Service Install		-
	Customer Operations, Advertising, G&A		287,926
	Network operating expenses		1,941,816
	TOTAL		**2,229,741**
EBITDA			**5,241,896**
Tax Depreciation			2,063,220
EBIT			**3,178,677**
Interest			-
Income			**3,178,677**
Tax			28,608
Net Income			**3,150,069**

Unit	Item	Year 30
Capital	Initial Deployment	-
	Success Based	-
	Network Capital Replacment	2,115,778
	TOTAL	**2,115,778**
Free Cash Flow	Raw	3,097,510
	PV	973,933
Bond Amortization	Balance	-
	Principal	-
	Interest	-
	Payment	-

TILSON

C.2.5 Rural Wireless

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
Demand	**Total Customers**							
		Average	Res	-	482	1,244	1,601	1,729
			Bus	-	41	142	216	237
			Total	-	522	1,386	1,818	1,965
	Data High							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-
	Data Low							
		Average	Res	-	482	1,244	1,601	1,729
			Bus	-	41	142	216	237
			Total	-	522	1,386	1,818	1,965
	Voice							
		Average	Res	-	169	435	560	605
			Bus	-	14	50	76	83
			Total	-	183	485	636	688

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 0	Year 1	Year 2	Year 3	Year 4
ARPU	**Data High**							
		Data High	Res	-	70	70	70	70
			Bus	-	100	100	100	100
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Data Low							
		Data Low	Res	-	35	35	35	35
			Bus	-	35	35	35	35
		NRC	Res	-	150	150	150	150
			Bus	-	150	150	150	150
	Voice							
		Voice	Res	-	20	20	20	20
			Bus	-	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
Demand	**Total Customers**							
		Average	Res	1,853	1,977	2,035	2,042	2,042
			Bus	250	264	270	270	270
			Total	2,103	2,241	2,306	2,313	2,313
	Data High							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-
	Data Low							
		Average	Res	1,853	1,977	2,035	2,042	2,042
			Bus	250	264	270	270	270
			Total	2,103	2,241	2,306	2,313	2,313
	Voice							
		Average	Res	649	692	712	715	715
			Bus	88	92	95	95	95
			Total	736	784	807	809	809

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 5	Year 6	Year 7	Year 8	Year 9
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	35	35	35	35	35
			Bus	35	35	35	35	35
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
Demand	**Total Customers**							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Data High							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-
	Data Low							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Voice							
		Average	Res	715	715	715	715	715
			Bus	95	95	95	95	95
			Total	809	809	809	809	809

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 10	Year 11	Year 12	Year 13	Year 14
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	35	35	35	35	35
			Bus	35	35	35	35	35
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
Demand	**Total Customers**							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Data High							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-
	Data Low							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Voice							
		Average	Res	715	715	715	715	715
			Bus	95	95	95	95	95
			Total	809	809	809	809	809

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 15	Year 16	Year 17	Year 18	Year 19
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	35	35	35	35	35
			Bus	35	35	35	35	35
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
Demand	**Total Customers**							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Data High							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-
	Data Low							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Voice							
		Average	Res	715	715	715	715	715
			Bus	95	95	95	95	95
			Total	809	809	809	809	809

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 20	Year 21	Year 22	Year 23	Year 24
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	35	35	35	35	35
			Bus	35	35	35	35	35
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
Demand	**Total Customers**							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Data High							
		Average	Res	-	-	-	-	-
			Bus	-	-	-	-	-
			Total	-	-	-	-	-
	Data Low							
		Average	Res	2,042	2,042	2,042	2,042	2,042
			Bus	270	270	270	270	270
			Total	2,313	2,313	2,313	2,313	2,313
	Voice							
		Average	Res	715	715	715	715	715
			Bus	95	95	95	95	95
			Total	809	809	809	809	809

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 25	Year 26	Year 27	Year 28	Year 29
ARPU	**Data High**							
		Data High	Res	70	70	70	70	70
			Bus	100	100	100	100	100
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Data Low							
		Data Low	Res	35	35	35	35	35
			Bus	35	35	35	35	35
		NRC	Res	150	150	150	150	150
			Bus	150	150	150	150	150
	Voice							
		Voice	Res	20	20	20	20	20
			Bus	20	20	20	20	20
		NRC	Res	-	-	-	-	-
			Bus	-	-	-	-	-

DEMAND

Unit	Product	Measure	Res/Bus/Total	Year 30
Demand	**Total Customers**			
		Average	Res	2,042
			Bus	270
			Total	2,313
	Data High			
		Average	Res	-
			Bus	-
			Total	-
	Data Low			
		Average	Res	2,042
			Bus	270
			Total	2,313
	Voice			
		Average	Res	715
			Bus	95
			Total	809

ARPU

Unit	Product	Measure	Res/Bus/Total	Year 30
ARPU	**Data High**			
		Data High	Res	70
			Bus	100
		NRC	Res	150
			Bus	150
	Data Low			
		Data Low	Res	35
			Bus	35
		NRC	Res	150
			Bus	150
	Voice			
		Voice	Res	20
			Bus	20
		NRC	Res	-
			Bus	-

Financials

Unit	Product	Measure	Year 0	Year 1	Year 2	Year 3	Year 4
Revenues	Data High						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
	Data Low						
		Subscription	-	219,275	582,038	763,368	825,493
		NRC	-	157,408	104,570	29,757	20,293
	Voice						
		Subscription	-	43,855	116,408	152,674	165,099
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		-	540	1,433	1,879	2,032
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	-	10,494	6,971	1,984	1,353
		TOTAL	-	10,494	6,971	1,984	1,353
	Service Install		-	78,704	52,285	14,878	10,146
	Customer Operations, Advertising, G&A		-	161,904	230,631	263,610	275,521
	Network operating expenses		-	281,555	295,992	300,094	302,886
	TOTAL		**-**	**533,198**	**587,311**	**582,445**	**591,937**
EBITDA			**-**	**(112,659)**	**215,704**	**363,354**	**418,947**
Tax Depreciation			-	760,408	1,334,842	1,019,443	784,822
EBIT			**-**	**(873,067)**	**(1,119,138)**	**(656,088)**	**(365,875)**
Interest			-	263,688	263,688	263,688	263,688
Income			**-**	**(1,136,755)**	**(1,382,825)**	**(919,776)**	**(629,563)**
Tax			-	(13,641)	(16,594)	(11,037)	(7,555)
Net Income			**-**	**(1,123,114)**	**(1,366,232)**	**(908,739)**	**(622,008)**

Unit	Item	Year 0	Year 1	Year 2	Year 3	Year 4
Capital	Initial Deployment	6,083,267	-	-	-	-
	Success Based	-	508,928	338,009	96,037	65,374
	Network Capital Replacment	-	71,586	101,454	131,846	160,938
	TOTAL	**6,083,267**	**580,514**	**439,462**	**227,884**	**226,312**
Free Cash Flow	Raw	-	(434,292)	(470,852)	(117,180)	(341,679)
	PV	-	(425,858)	(443,950)	(106,236)	(297,853)
Bond Amortization	Balance		6,592,195	6,592,195	6,592,195	6,592,195
	Principal		-	-	-	278,181
	Interest		263,688	263,688	263,688	263,688
	Payment		263,688	263,688	263,688	541,869

Financials

Unit	Product	Measure	Year 5	Year 6	Year 7	Year 8	Year 9
Revenues	Data High						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
	Data Low						
		Subscription	883,310	941,126	968,347	971,286	971,286
		NRC	27,108	20,706	5,558	3,469	3,469
	Voice						
		Subscription	176,662	188,225	193,669	194,257	194,257
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		2,174	2,316	2,383	2,391	2,391
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	1,807	1,380	371	231	231
		TOTAL	1,807	1,380	371	231	231
	Service Install		13,554	10,353	2,779	1,734	1,734
	Customer Operations, Advertising, G&A		287,105	298,297	303,307	304,014	304,215
	Network operating expenses		306,616	309,459	310,208	310,665	311,120
	TOTAL		**611,256**	**621,806**	**619,047**	**619,035**	**619,691**
EBITDA			**475,823**	**528,251**	**548,527**	**549,977**	**549,321**
Tax Depreciation			753,519	573,705	401,264	396,306	400,658
EBIT			**(277,696)**	**(45,454)**	**147,263**	**153,671**	**148,664**
Interest			252,561	240,988	228,953	216,436	203,419
Income			**(530,256)**	**(286,442)**	**(81,690)**	**(62,766)**	**(54,756)**
Tax			(6,363)	(3,437)	(980)	(753)	(657)
Net Income			**(523,893)**	**(283,005)**	**(80,710)**	**(62,013)**	**(54,098)**

Unit	Item	Year 5	Year 6	Year 7	Year 8	Year 9
Capital	Initial Deployment	-	-	-	-	-
	Success Based	87,343	66,568	17,522	10,711	10,655
	Network Capital Replacment	189,854	218,607	246,265	271,899	295,322
	TOTAL	**277,196**	**285,175**	**263,788**	**282,611**	**305,977**
Free Cash Flow	Raw	(336,879)	(295,355)	(256,149)	(273,749)	(297,868)
	PV	(282,373)	(238,046)	(198,507)	(203,987)	(213,422)
Bond Amortization	Balance	6,314,014	6,024,706	5,723,825	5,410,910	5,085,477
	Principal	289,308	300,880	312,916	325,432	338,450
	Interest	252,561	240,988	228,953	216,436	203,419
	Payment	541,869	541,869	541,869	541,869	541,869

Financials

Unit	Product	Measure	Year 10	Year 11	Year 12	Year 13	Year 14
Revenues	Data High						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
	Data Low						
		Subscription	971,286	971,286	971,286	971,286	971,286
		NRC	3,469	3,469	3,469	3,469	3,469
	Voice						
		Subscription	194,257	194,257	194,257	194,257	194,257
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		2,391	2,391	2,391	2,391	2,391
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	231	231	231	231	231
		TOTAL	231	231	231	231	231
	Service Install		1,734	1,734	1,734	1,734	1,734
	Customer Operations, Advertising, G&A		304,414	304,613	304,811	305,007	305,203
	Network operating expenses		311,573	312,023	312,471	312,917	313,360
	TOTAL		**620,344**	**620,993**	**621,638**	**622,280**	**622,919**
EBITDA			**548,669**	**548,020**	**547,374**	**546,732**	**546,094**
Tax Depreciation			416,331	435,091	453,074	472,584	492,556
EBIT			**132,338**	**112,929**	**94,300**	**74,149**	**53,537**
Interest			189,881	175,802	161,159	145,931	130,093
Income			**(57,543)**	**(62,873)**	**(66,859)**	**(71,782)**	**(76,556)**
Tax			(691)	(754)	(802)	(861)	(919)
Net Income			**(56,853)**	**(62,119)**	**(66,057)**	**(70,921)**	**(75,637)**

Unit	Item	Year 10	Year 11	Year 12	Year 13	Year 14
Capital	Initial Deployment	-	-	-	-	-
	Success Based	10,599	10,543	10,487	10,431	10,375
	Network Capital Replacment	316,144	334,010	348,683	360,062	368,200
	TOTAL	**326,743**	**344,553**	**359,170**	**370,492**	**378,575**
Free Cash Flow	Raw	(319,252)	(337,648)	(352,862)	(364,767)	(373,431)
	PV	(219,947)	(223,673)	(224,761)	(223,408)	(219,918)
Bond Amortization	Balance	4,747,028	4,395,040	4,028,973	3,648,263	3,252,325
	Principal	351,988	366,067	380,710	395,938	411,776
	Interest	189,881	175,802	161,159	145,931	130,093
	Payment	541,869	541,869	541,869	541,869	541,869

Financials

Unit	Product	Measure	Year 15	Year 16	Year 17	Year 18	Year 19
Revenues	Data High						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
	Data Low						
		Subscription	971,286	971,286	971,286	971,286	971,286
		NRC	3,469	3,469	3,469	3,469	3,469
	Voice						
		Subscription	194,257	194,257	194,257	194,257	194,257
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		2,391	2,391	2,391	2,391	2,391
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	231	231	231	231	231
		TOTAL	231	231	231	231	231
	Service Install		1,734	1,734	1,734	1,734	1,734
	Customer Operations, Advertising, G&A		305,397	305,590	305,783	305,974	306,164
	Network operating expenses		313,801	314,239	314,675	315,108	315,539
	TOTAL		**623,554**	**624,186**	**624,814**	**625,439**	**626,060**
EBITDA			**545,458**	**544,827**	**544,199**	**543,574**	**542,952**
Tax Depreciation			511,310	439,390	356,161	355,185	356,755
EBIT			**34,149**	**105,437**	**188,037**	**188,388**	**186,197**
Interest			113,622	96,492	78,677	60,149	40,881
Income			**(79,473)**	**8,945**	**109,360**	**128,239**	**145,317**
Tax			(954)	107	1,312	1,539	1,744
Net Income			**(78,519)**	**8,837**	**108,048**	**126,700**	**143,573**

Unit	Item	Year 15	Year 16	Year 17	Year 18	Year 19
Capital	Initial Deployment	-	-	-	-	-
	Success Based	10,319	10,263	10,207	10,151	10,094
	Network Capital Replacment	373,310	375,750	376,005	374,648	372,178
	TOTAL	**383,629**	**386,013**	**386,212**	**384,799**	**382,272**
Free Cash Flow	Raw	(379,085)	(383,162)	(385,194)	(384,632)	(382,932)
	PV	(214,661)	(208,625)	(201,664)	(193,625)	(185,355)
Bond Amortization	Balance	2,840,550	2,412,303	1,966,926	1,503,735	1,022,016
	Principal	428,247	445,377	463,192	481,719	500,988
	Interest	113,622	96,492	78,677	60,149	40,881
	Payment	541,869	541,869	541,869	541,869	541,869

Financials

Unit	Product	Measure	Year 20	Year 21	Year 22	Year 23	Year 24
Revenues	Data High						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
	Data Low						
		Subscription	971,286	971,286	971,286	971,286	971,286
		NRC	3,469	3,469	3,469	3,469	3,469
	Voice						
		Subscription	194,257	194,257	194,257	194,257	194,257
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		2,391	2,391	2,391	2,391	2,391
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	231	231	231	231	231
		TOTAL	231	231	231	231	231
	Service Install		1,734	1,734	1,734	1,734	1,734
	Customer Operations, Advertising, G&A		306,353	306,541	306,728	306,914	307,099
	Network operating expenses		315,968	316,395	316,819	317,240	317,659
	TOTAL		**626,678**	**627,292**	**627,903**	**628,511**	**629,115**
EBITDA			**542,335**	**541,720**	**541,109**	**540,502**	**539,898**
Tax Depreciation			360,748	364,662	366,875	368,644	370,792
EBIT			**181,586**	**177,058**	**174,234**	**171,857**	**169,105**
Interest			20,841	-	-	-	-
Income			**160,745**	**177,058**	**174,234**	**171,857**	**169,105**
Tax			1,929	2,125	2,091	2,062	2,029
Net Income			**158,816**	**174,933**	**172,143**	**169,795**	**167,076**

Unit	Item	Year 20	Year 21	Year 22	Year 23	Year 24
Capital	Initial Deployment	-	-	-	-	-
	Success Based	10,038	9,982	9,926	9,870	9,814
	Network Capital Replacment	369,405	366,804	364,827	363,794	363,878
	TOTAL	**379,444**	**376,786**	**374,753**	**373,664**	**373,692**
Free Cash Flow	Raw	(380,907)	162,809	164,266	164,775	164,176
	PV	(177,284)	72,861	70,685	68,177	65,317
Bond Amortization	Balance	521,028	(0)	(0)	(0)	(0)
	Principal	521,028	-	-	-	-
	Interest	20,841	-	-	-	-
	Payment	541,869	-	-	-	-

Financials

Unit	Product	Measure	Year 25	Year 26	Year 27	Year 28	Year 29
Revenues	Data High						
		Subscription	-	-	-	-	-
		NRC	-	-	-	-	-
	Data Low						
		Subscription	971,286	971,286	971,286	971,286	971,286
		NRC	3,469	3,469	3,469	3,469	3,469
	Voice						
		Subscription	194,257	194,257	194,257	194,257	194,257
		NRC	-	-	-	-	-
Operational Costs	Voice expenses		2,391	2,391	2,391	2,391	2,391
	Customer Acquisition						
		Data High	-	-	-	-	-
		Data Low	231	231	231	231	231
		TOTAL	231	231	231	231	231
	Service Install		1,734	1,734	1,734	1,734	1,734
	Customer Operations, Advertising, G&A		307,283	307,466	307,648	307,828	308,008
	Network operating expenses		318,076	318,490	318,902	319,312	319,719
	TOTAL		**629,715**	**630,313**	**630,906**	**631,497**	**632,083**
EBITDA			**539,297**	**538,700**	**538,106**	**537,516**	**536,929**
Tax Depreciation			372,602	373,939	375,302	376,819	378,548
EBIT			**166,695**	**164,760**	**162,803**	**160,697**	**158,381**
Interest			-	-	-	-	-
Income			**166,695**	**164,760**	**162,803**	**160,697**	**158,381**
Tax			2,000	1,977	1,954	1,928	1,901
Net Income			**164,695**	**162,783**	**160,850**	**158,769**	**156,480**

Unit	Item	Year 25	Year 26	Year 27	Year 28	Year 29
Capital	Initial Deployment	-	-	-	-	-
	Success Based	9,758	9,702	9,646	9,590	9,534
	Network Capital Replacment	365,102	367,361	370,453	374,118	378,078
	TOTAL	**374,860**	**377,063**	**380,099**	**383,708**	**387,612**
Free Cash Flow	Raw	162,437	159,660	156,054	151,879	147,416
	PV	62,139	58,728	55,194	51,651	48,205
Bond Amortization	Balance	(0)	(0)	(0)	(0)	(0)
	Principal	-	-	-	-	-
	Interest	-	-	-	-	-
	Payment	-	-	-	-	-

Financials

Unit	Product	Measure	Year 30
Revenues	Data High		
		Subscription	-
		NRC	-
	Data Low		
		Subscription	971,286
		NRC	3,469
	Voice		
		Subscription	194,257
		NRC	-
Operational Costs	Voice expenses		2,391
	Customer Acquisition		
		Data High	-
		Data Low	231
		TOTAL	231
	Service Install		1,734
	Customer Operations, Advertising, G&A		308,219
	Network operating expenses		320,198
	TOTAL		**632,774**
EBITDA			**536,238**
Tax Depreciation			380,503
EBIT			**155,736**
Interest			-
Income			**155,736**
Tax			1,869
Net Income			**153,867**

Unit	Item	Year 30
Capital	Initial Deployment	-
	Success Based	11,216
	Network Capital Replacment	382,070
	TOTAL	**393,286**
Free Cash Flow	Raw	141,084
	PV	44,360
Bond Amortization	Balance	(0)
	Principal	-
	Interest	-
	Payment	-

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 10

JEDO Board Meeting
May 9, 2018

Any other business items that may come before the Board for consideration.

City of Topeka & Shawnee County
JOINT ECONOMIC DEVELOPMENT ORGANIZATION
United For Growth

Agenda Item No. 11

JEDO Board Meeting
May 9, 2018

Public Comment.