Roanoke Telephone Company, Inc.
Chambers County Community Broadband Project

Construction Build-out And Project Milestones

Project Objectives and Activities	Year 1 - 2021				Year 2 - 2022			
	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Begin project on April 1, 2021 (estimated date)		X						
Staking and Engineering Design by JDFEC Engineering Company		X						
TEC orders network equipment and JDFEC Engineering completes Contracts for bid with Contractor		X						
Contractor - Direct bury, string aerial and/or bore core fiber			X	X				
Contractor - Buries drops to all active subscribers and pre-sold locations				X	X	X		
TEC runs a marketing campaign "fiber is coming to "X Community"			X	X	X	X		
Splicing and testing (JDFEC, Contractor and TEC) at completion of each PSA				X				
TEC or Contractor installs CPE for locations requesting service (after drop is completed by contractor)				X	X	X		
Project Complete						X		

Datapoints for Milestones:	Miles	Days	Months (if 18 viable staking days)	Total Estimated Staking Months
Staking and Design	8.7	3.48	0.19	0.19
Assume 18 viable staking days in a month considering weather				
Two man crew stakes 2.5 miles per day				
Design - 30 days				1.00
Contract and bid package - 15 days				0.50
Estimate for Engineering Staking, Design and Bid Package/Contract Completion - Months				**2.00**

	Miles	Days	Months (if 18 viable construction days)	Testing and Splicing in Months	Total Estimated Construction Months for Core Fiber Build
Contractor Core Fiber Build	8.7	17.4	0.97	0.5	1.47

Assume 18 viable construction days in a month considering weather
For one crew:

Aerial elash	1 mile per day
Aerial placing strand and lashing	½ mile per day
Plowing	½ mile per day
Boring	1500' per day

These are all best case scenarios. Soil conditions and terrain and length of bores can affect the production.
Add two weeks on average for splicing and testing.
This does not include rock. There are too many variables to consider. We've had a crew spend two days on one bore before.

	Fiber Drops	Days	Months

Contractor drop construction			
Estimated 5 drops per day barring rock or if a bore is required	96	19.20	
Assume 18 viable construction days in a month considering weather			1.07
Estimate Total Time for Construction by Contractor			**3.00**
Installation of CPE and Turn Up of Customers	**Customers**	**Weeks**	**Months**
Estimate installers can turn up 20 customers per week;	96	4.80	
Estimate in months for local installers to turn up customers			**2.00**
Total Timeline in Months			**7.00**

Note: Assumptions include building the core fiber for the unfunded area at the same time as the funded, drops and cpe for unfunded will be scheduled with RTC labor and is not in the timeline.

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Project Budget-Total Budget for Project

BUDGET	No. of Units	Unit cost	Total	Grant	Cash	Allocation of Engineering	Total by Account	Description
BROADBAND SYSTEM								**Note:** These items are general in nature, applicants should modify as required to describe their specific project.
Electronic Equipment (FTTH)	1	7,500.00	7,500.00	2,625.00	4,875.00	1,299.52	8,799.52	Optical Line Terminal (OLT)
Electronic Equipment (FTTH)	2	750.00	1,500.00	525.00	975.00	259.90	1,759.90	Pole mounted 1:32 Distributed Optical Splitters (units distributed)
Electronic Equipment (FTTH)	1	7,500.00	7,500.00	2,625.00	4,875.00	1,299.52	8,799.52	288 port LCP Cabinet mounted on a on a pole and loaded with fiber tails with connectors
Electronic Equipment (FTTH)	96	375.00	36,000.00	12,600.00	23,400.00	6,237.68	42,237.68	Includes an Optical Network Terminal (ONT), Fiber NID and Uninterrupted Power Source (UPS)
Outside plant (fiber) - Distribution fiber	8.3	41,000.00	340,300.00	119,105.00	221,195.00	58,963.39	399,263.39	Proposing 96 and 144 count fiber of buried/plowed, bored or aerial fiber (unit cost includes fiber, fiber pedestals, and handholes with slack fiber and cost of contractor for direct bury or boring as needed, as well as, a contingency to go aerial in spans that cannot be feasibly plowed).
Customer premises equipment	96	125.00	12,000.00	4,200.00	7,800.00		12,000.00	CPE includes a Smart RG Modem
Outside plant (fiber) - Drop fiber	96	825.00	79,200.00	27,720.00	51,480.00		79,200.00	Drop assumes an average of 550 feet from the road to the home or business and the slack box mounted (fiber and labor price)
Contingency (add to Construction)			0.00	-	0.00			Contingency on fiber and contractor pricing, as well as, hiring contract labor to complete all installations
Buildings – new construction			0.00	-				
Collocation Costs			0.00	-				
Site preparation			0.00	-				
Engineering			68,060.00	23,821.00	44,239.00			Includes staking, right-of-way permits, contractor negotiation, onsite resident engineer for project, cut sheets and testing
Total Broadband System in Application			**552,060.00**	**193,221.00**	**358,839.00**	**68,060.00**	**552,060.00**	
Percentage				**35.0%**	**65.0%**			
Broadband System			552,060.00	193,221.00	358,839.00			