

APR 25 2014

PUBLIC SERVICE  
COMMISSION

Logan Telephone Cooperative (Logan) plans to construct Fiber-To-The-Premise (FTTP) facilities to 495 locations in the town portion of the Adairville exchange of Logan County. Plans are to deploy this active FTTP system to increase the broadband speeds available to their customers. This construction will afford the city of Adairville KY with State of the Art broadband facilities.

The only other fixed communications provider in this area is Sudden Link Cable TV inside the city limits of Adairville. Sudden Link has limited fiber-optic facilities and coaxial cable facilities throughout Adairville city.

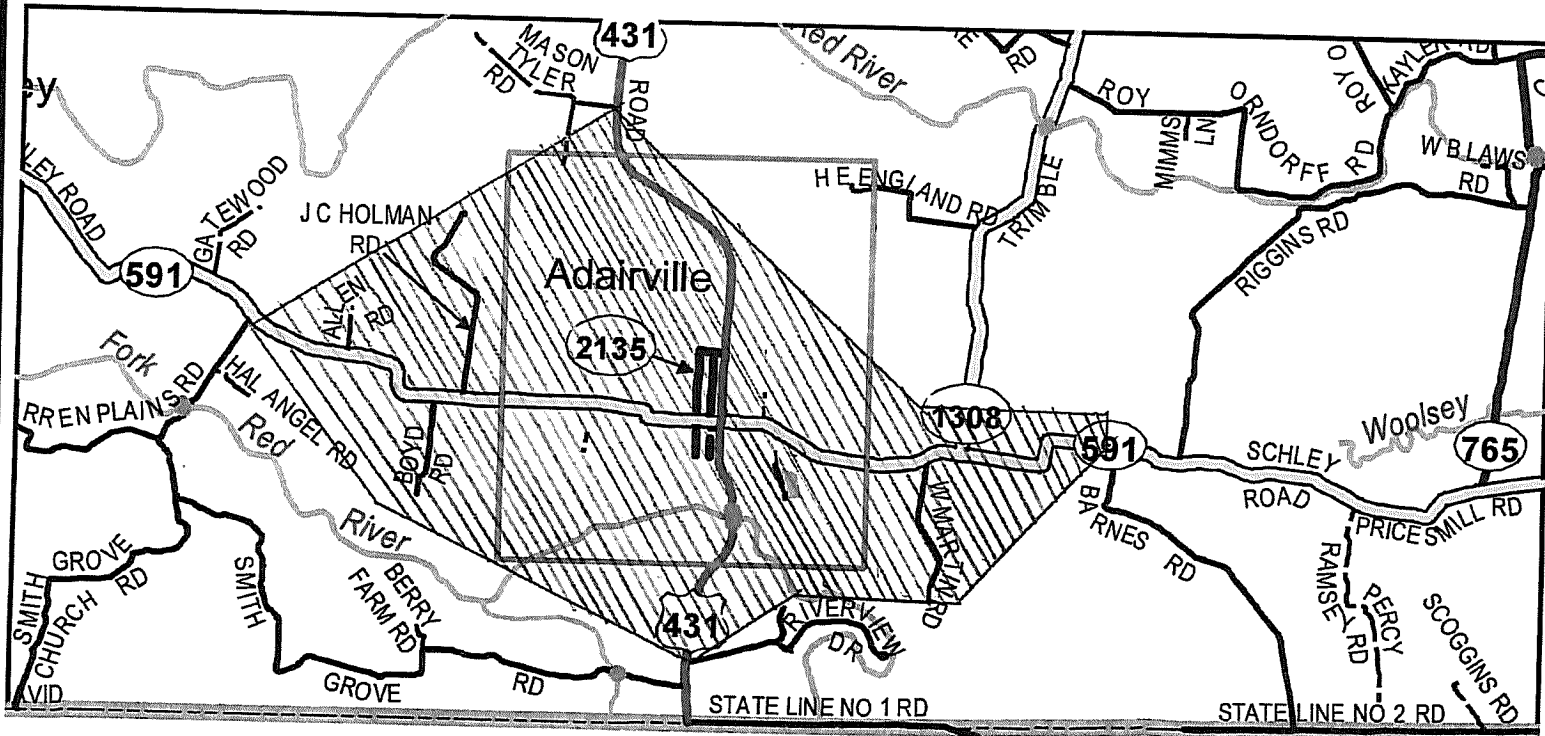
Logan's fiber optic cable will be placed between the central office located in Adairville and each inhabitable residential premise and each business premise on the proposed routes. This cable will be direct buried at a depth of 30 inches.

This construction will include placing fiber cable from the main line cable to each premise. The interface between the buried main line cable and the subscriber cable will be either in a below ground level handhole or an above ground pedestal.

In addition to the fiber-optic cable facilities Logan will place electronic equipment in their Adairville central office to transport the optical signal from the central switch to the customer. Calix will be the primary manufacturer for this equipment. This optical signal will be converted at the customer's premise to an electrical signal in Internet Protocol (IP) format for service to the customer's computer or network device.

This construction will be performed under Rural Utilities Service (RUS) specifications for direct buried plant and for customer premise cable. Construction is expected to start in late May and complete by December 31, 2014. All required highway permits will be obtained prior to construction start. The majority of this construction will be on private right-of-way.





STATE OF KENTUCKY  
BRIAN G. BURCH  
29681  
PROFESSIONAL ENGINEER

**Logan Telephone Cooperative Corporation  
Adairville CO FTTP  
OSP Cost Estimate**

10-LT-14010

Unit	Quantity	Labor	Extended Labor	Material	Extended Material	Unit Cost	Total Cost
BDO5G	12	\$200.00	\$2,400.00	\$393.85	\$4,726.16	\$593.85	\$7,126.16
<b>SUBTOTAL SECTION BDO</b>			<b>\$2,400.00</b>		<b>\$4,726.16</b>		<b>\$7,126.16</b>
BFO12RW	9,824	\$2.61	\$25,640.64	\$0.74	\$7,302.51	\$3.35	\$32,943.15
BFO12RI	8,192	\$1.23	\$10,076.16	\$0.48	\$3,904.85	\$1.71	\$13,981.01
BFO24RW	3,772	\$4.15	\$15,653.80	\$0.83	\$3,143.33	\$4.98	\$18,797.13
BFO24RI	15,480	\$1.23	\$19,040.40	\$0.56	\$8,720.40	\$1.79	\$27,760.80
BFO24RIE	554	\$1.23	\$681.42	\$0.56	\$310.24	\$1.79	\$991.66
BFO48RI	4,356	\$1.23	\$5,357.88	\$0.75	\$3,267.00	\$1.98	\$8,624.88
BFO96RI	3,024	\$1.23	\$3,719.52	\$1.10	\$3,326.40	\$2.33	\$7,045.92
BFO144RW	502	\$4.07	\$2,044.81	\$1.66	\$833.32	\$5.73	\$2,878.13
BFO144RI	12,848	\$1.23	\$15,803.04	\$1.66	\$21,327.68	\$2.89	\$37,130.72
BFO144RIE	1,628	\$1.23	\$2,002.44	\$1.66	\$2,702.48	\$2.89	\$4,704.92
BFO216RI	3,090	\$1.23	\$3,800.70	\$2.16	\$6,674.40	\$3.39	\$10,475.10
BFO288RW	4,452	\$4.07	\$18,119.64	\$2.59	\$11,530.68	\$6.66	\$29,650.32
BFO288RI	4,660	\$1.23	\$5,731.80	\$2.59	\$12,069.40	\$3.82	\$17,801.20
BFO288RIE	2,190	\$1.23	\$2,693.70	\$2.59	\$5,672.10	\$3.82	\$8,365.80
BFO864RW	7,940	\$4.07	\$32,315.80	\$7.42	\$58,914.80	\$11.49	\$91,230.60
BFO864RI	1,748	\$2.00	\$3,496.00	\$7.42	\$12,970.16	\$9.42	\$16,466.16
1) (BFO144RW	4,832	\$3.08	\$14,882.56	\$1.66	\$8,021.12	\$4.74	\$22,903.68
1A) &V(1x1.50))D	4,222	\$1.27	\$5,361.94	\$1.74	\$7,346.28	\$3.01	\$12,708.22
2) (BFO96RW	7,878	\$4.71	\$37,105.38	\$1.37	\$10,792.86	\$6.08	\$47,898.24
2A) & V(1x1.50))D	6,732	\$1.43	\$9,626.76	\$7.73	\$52,038.36	\$9.16	\$61,665.12
3) (BFO72RW	7,556	\$4.71	\$35,588.76	\$1.19	\$8,991.64	\$5.90	\$44,580.40
3A) & V(1x1.50))D	6,408	\$1.27	\$8,116.80	\$0.74	\$4,741.92	\$2.01	\$12,858.72
4) (BFO96RW	2,860	\$4.38	\$12,517.27	\$1.37	\$3,918.20	\$5.75	\$16,435.47
4A) &BFO864R)D	2,676	\$1.27	\$3,389.60	\$0.74	\$1,980.24	\$2.01	\$5,369.84
5)(BFO144RW	4,506	\$4.38	\$19,736.28	\$1.66	\$7,479.96	\$6.04	\$27,216.24
5A)&BFO288R)D	3,844	\$1.27	\$4,881.88	\$2.59	\$9,955.96	\$3.86	\$14,837.84
BFOV(1x1.25)H	26,572	\$9.25	\$245,791.00	\$0.65	\$17,183.23	\$9.90	\$262,974.23
BFOV(1x1.25)T	305	\$13.33	\$4,066.67	\$0.65	\$197.23	\$13.98	\$4,263.90
BFOV(1X1.50)H	784	\$10.00	\$7,840.00	\$1.29	\$1,011.36	\$11.29	\$8,851.36
BFOV(2x1.25)H	1,375	\$11.25	\$15,468.75	\$1.29	\$1,778.33	\$12.54	\$17,247.08
BFOV(2x1.25)T	85	\$13.33	\$1,133.05	\$1.29	\$109.93	\$14.62	\$1,242.98
BFOV(2X1.50)H	6,884	\$11.25	\$77,445.00	\$1.49	\$10,234.21	\$12.74	\$87,679.21
BFOV(3X1.50)H	715	\$21.80	\$15,587.00	\$1.49	\$1,062.97	\$23.29	\$16,649.97
<b>SUBTOTAL SECTION BFO</b>			<b>\$684,716.45</b>		<b>\$309,513.56</b>		<b>\$994,230.01</b>
BHF(12x12x12)	28	\$298.33	\$8,353.33	\$93.52	\$2,618.47	\$391.85	\$10,971.80
BHF(22X42X30)TIER 15	184	\$450.00	\$82,800.00	\$209.79	\$38,601.97	\$659.79	\$121,401.97
BHF(30x48x30)TIER 15	11	\$513.33	\$5,646.67	\$566.50	\$6,231.46	\$1,079.83	\$11,878.13
BHF(39X48X30)TIER 15	3	\$426.42	\$1,279.26	\$570.28	\$1,710.84	\$996.70	\$2,990.10
<b>SUBTOTAL SECTION BH</b>			<b>\$98,079.26</b>		<b>\$49,162.74</b>		<b>\$147,242.00</b>
BM2	126	\$28.08	\$3,538.50	\$30.81	\$3,881.64	\$58.89	\$7,420.14
BM2A	82	\$23.83	\$1,954.33	\$9.29	\$761.78	\$33.12	\$2,716.11
BM53	31	\$26.30	\$815.30	\$33.40	\$1,035.40	\$59.70	\$1,850.70
BM53L	195	\$31.97	\$6,233.50	\$41.30	\$8,052.85	\$73.26	\$14,286.35
BM60(1X1.25)	6,270	\$9.42	\$59,042.50	\$0.65	\$4,054.60	\$10.06	\$63,097.10
BM60(1X1.25)D	2,466	\$9.42	\$23,229.72	\$0.65	\$1,594.68	\$10.07	\$24,824.40
BM60(1X1.25)RR	102	\$87.50	\$8,925.00	\$0.65	\$65.96	\$88.15	\$8,990.96
BM60(1x1.50)D	185	\$9.42	\$1,742.08	\$0.74	\$137.52	\$10.16	\$1,879.60
BM60(1x2)	50	\$14.17	\$708.33	\$1.85	\$92.33	\$16.01	\$800.67
BM60(1x3)	120	\$14.17	\$1,700.00	\$2.26	\$270.80	\$16.42	\$1,970.80
BM60(2x1.25)D	140	\$9.75	\$1,365.00	\$1.29	\$181.07	\$11.04	\$1,546.07
BM60(2x1.25)I	70	\$1.33	\$93.10	\$1.29	\$90.53	\$2.62	\$183.63
BM60(2x1.50)D	921	\$9.75	\$8,979.75	\$1.49	\$1,369.22	\$11.24	\$10,348.97
BM60(2x1.50)R	120	\$33.47	\$4,016.00	\$1.49	\$178.40	\$34.95	\$4,194.40
BM60(3X1.50)D	98	\$9.75	\$955.50	\$2.30	\$225.40	\$12.05	\$1,180.90
BM61(1)	65	\$26.08	\$1,695.42	\$0.33	\$21.67	\$26.42	\$1,717.08
BM71	515	\$10.67	\$5,495.05	\$0.00	\$0.00	\$10.67	\$5,495.05
BM71E(12)	515	\$12.17	\$6,267.55	\$0.00	\$0.00	\$12.17	\$6,267.55
BM71E(18)	515	\$14.00	\$7,210.00	\$0.00	\$0.00	\$14.00	\$7,210.00
BM71E(24)	515	\$16.67	\$8,585.05	\$0.00	\$0.00	\$16.67	\$8,585.05

**Logan Telephone Cooperative Corporation**  
**Adairville CO FTTP**  
**OSP Cost Estimate**

10-LT-14010

Unit	Quantity	Labor	Extended Labor	Material	Extended Material	Unit Cost	Total Cost
BM71CF	8	\$27.67	\$221.36	\$0.00	\$0.00	\$27.67	\$221.36
BM72	394	\$45.00	\$17,730.00	\$3.33	\$1,313.33	\$48.33	\$19,043.33
BM83	495	\$23.63	\$11,698.50	\$5.88	\$2,912.25	\$29.52	\$14,610.75
<b>SUBTOTAL SECTION BM</b>			<b>\$182,201.55</b>		<b>\$26,239.43</b>		<b>\$208,440.98</b>
HBFOG	2	\$500.00	\$1,000.00	\$700.00	\$1,400.00	\$1,200.00	\$2,400.00
HBFOXL	2	\$225.00	\$450.00	\$776.11	\$1,552.23	\$1,001.11	\$2,002.23
HBFOL	1	\$225.00	\$225.00	\$545.40	\$545.40	\$770.40	\$770.40
HBFOM	31	\$208.33	\$6,458.33	\$407.49	\$12,632.09	\$615.82	\$19,090.42
HBFOS	163	\$208.33	\$33,958.33	\$377.94	\$61,604.76	\$586.28	\$95,563.10
<b>SUBTOTAL SECTION HBF</b>			<b>\$42,091.67</b>		<b>\$77,734.47</b>		<b>\$119,826.14</b>
HO1	1,263	\$31.83	\$40,201.29	\$0.54	\$677.81	\$32.37	\$40,879.10
HO1R	2,820	\$22.00	\$62,040.00	\$1.09	\$3,083.20	\$23.09	\$65,123.20
<b>SUBTOTAL SECTION HO</b>			<b>\$102,241.29</b>		<b>\$3,761.01</b>		<b>\$106,002.30</b>
NIDO	460	\$61.39	\$28,240.93	\$46.58	\$21,428.33	\$107.98	\$49,669.27
NIDO9	19	\$105.73	\$2,008.81	\$59.56	\$1,131.58	\$165.28	\$3,140.38
MDU12	16	\$127.23	\$2,035.63	\$40.37	\$645.97	\$167.60	\$2,681.60
<b>SUBTOTAL SECTION NID</b>			<b>\$32,285.37</b>		<b>\$23,205.88</b>		<b>\$55,491.25</b>
SEBO2	73,890	\$2.83	\$209,355.00	\$0.20	\$15,024.30	\$3.04	\$224,379.30
SEBO2E(24)	1,122	\$3.17	\$3,553.00	\$0.28	\$317.90	\$3.45	\$3,870.90
SEBO2I	6,524	\$1.53	\$10,003.47	\$0.20	\$1,326.55	\$1.74	\$11,330.01
SEBO6	5,616	\$3.00	\$16,829.28	\$0.26	\$1,460.16	\$3.26	\$18,289.44
SEBO6I	876	\$1.23	\$1,077.48	\$0.26	\$227.76	\$1.49	\$1,305.24
SEBO6IE	206	\$1.23	\$253.38	\$0.26	\$53.56	\$1.49	\$306.94
<b>SUBTOTAL SECTION SE</b>			<b>\$241,071.61</b>		<b>\$18,410.23</b>		<b>\$259,481.83</b>
UD(4-3x2)	1,152	\$8.00	\$9,216.00	\$6.27	\$7,219.20	\$14.27	\$16,435.20
<b>SUBTOTAL SECTION UD</b>			<b>\$9,216.00</b>		<b>\$7,219.20</b>		<b>\$16,435.20</b>
UO144R	1,486	\$1.67	\$2,476.67	\$1.16	\$1,723.76	\$2.83	\$4,200.43
UO216R	882	\$1.67	\$1,470.00	\$2.28	\$2,010.96	\$3.95	\$3,480.96
UO864R	1,416	\$1.67	\$2,360.00	\$7.42	\$10,506.72	\$9.09	\$12,866.72
<b>SUBTOTAL SECTION UO</b>			<b>\$6,306.67</b>		<b>\$14,241.44</b>		<b>\$20,548.11</b>
WBDO7	2	\$175.00	\$350.00	\$7.54	\$15.08	\$182.54	\$365.08
WBFO12	72	\$10.00	\$720.00	\$0.50	\$36.00	\$10.50	\$756.00
WBFO24	36	\$10.00	\$360.00	\$0.50	\$18.00	\$10.50	\$378.00
WBHF	1	\$316.67	\$316.67	\$6.67	\$6.67	\$323.33	\$323.33
WHO1	116	\$67.73	\$7,857.07	\$7.09	\$822.83	\$74.83	\$8,679.89
<b>SUBTOTAL SECTION WW</b>			<b>\$9,603.73</b>		<b>\$898.57</b>		<b>\$10,502.31</b>
XXBHF	7	\$170.33	\$1,192.33	\$0.00	\$0.00	\$170.33	\$1,192.33
XXHBFO	2	\$50.00	\$100.00	\$0.00	\$0.00	\$50.00	\$100.00
<b>SUBTOTAL SECTION XX</b>			<b>\$1,292.33</b>		<b>\$0.00</b>		<b>\$1,292.33</b>
<b>GRAND TOTAL</b>			<b>\$1,411,505.92</b>		<b>\$535,112.70</b>		<b>\$1,946,618.62</b>

**Logan Telephone Cooperative**  
**Adairville CO FTTP**  
**Electronics Estimate**

<b>PART NUMBER</b>	<b>MODEL</b>	<b>DESCRIPTION</b>	<b>UNIT COST</b>	<b>QUANTITY</b>	<b>TOTAL COST</b>
100-03158	800GE RSG	836GE RESIDENTIAL SERVICE GATEWAY	\$ 232.50	521	\$ 121,132.50
100-00049	C7	CIRCUIT BREAKER PANEL	\$ 636.00	2	\$ 1,272.00
100-01790	E7	E7 LINE CARD BLANK	\$ 20.00	18	\$ 360.00
100-03448	ONTCMN-INDOOR	ONT FIBER MGMT ASSEMBLY QTY 20	\$ 180.00	27	\$ 4,860.00
000-00529	E7-20	E7-20 SYSTEM PACKAGE	\$ 2,089.50	2	\$ 4,179.00
100-02092	E7-20	E7-20 SWITCH CONTROL PROCESSOR	\$ 4,196.50	4	\$ 16,786.00
100-02093	E7-20	E7-20 GE-24X CARD	\$ 2,796.50	22	\$ 61,523.00
100-01792	OIM AE	2X 1GE BIDI CSFP DUAL BIDI 20 KM 1490 NM LC	\$ 168.75	264	\$ 44,550.00
100-01660	OIM TRANSPORT	1GE SFP MULTI-MODE 500M 850NM LC	\$ 60.00	2	\$ 120.00
100-02062	ONT	INDOOR UPS WALL MOUNT 12V 7.2AH 24W	\$ 46.00	521	\$ 23,966.00
100-02064	ONT	INDOOR UPS POWER CORD 7 PIN TO 9 PIN 10' BLACK	\$ 9.00	521	\$ 4,689.00
<b>SUBTOTAL</b>					<b>\$ 283,437.50</b>
SALES TAX					\$ 17,006.25
FREIGHT					\$ 3,700.00
110-00724	800GE RSG	EXTENDED WARRANTY 4 YEARS FOR 100-03158	\$ 20.00	521	\$ 10,420.00
INSTALLATION		RACKS, RECTIFIERS, PATCH PANELS, SPLICE BOX, LABOR			\$ 40,000.00
<b>GRAND TOTAL</b>					<b>\$ 354,563.75</b>

**LOGAN TELEPHONE COOPERATIVE**  
**ADAIRVILLE CO**  
**TOTAL CONSTRUCTION ESTIMATE**

<b>Drops</b>	<b>495</b>
<b>Route Miles</b>	<b>20.41</b>
<b>Drop Miles</b>	<b>16.71</b>
<b>Total Miles</b>	<b>37.12</b>
<b>Potential Customers</b>	<b>521</b>

<b>OSP Estimate</b>	<b>\$1,946,619</b>
<b>Electronics Estimate</b>	<b>\$354,564</b>
<b>Engineering Estimate</b>	<b>\$428,336</b>
<b>Total Estimate</b>	<b>\$2,729,518</b>