

**MAXIMUM TOTAL COST FACTORS**

Common Underground Materials Total	\$4,900,762.98	
Common Underground Labor Total	\$14,347,098.00	
Common Underground Grand Total	\$19,247,860.98	\$2,387.48
100% Underground Drop Total	\$10,110,578.88	\$1,254.10 average per drop
100% UNDERGROUND GRAND TOTAL	\$29,358,439.86	\$3,641.58

**MINIMUM TOTAL COST FACTORS**

Common Aerial Materials Total	\$3,994,837.37		
Common Aerial labor Total	\$8,926,848.00		
Common Aerial GRAND TOTAL	\$12,921,685.37	note that this is not realistic	\$16,084,773.18 is realistic
100% Aerial Drop Total	\$6,578,914.48	\$816.04 average per drop	\$3,163,087.81
100% Aerial Grand Total	\$19,500,599.85		\$3,531,664.40 UG to AER Drop Difference



DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST	UG UNIT	UG LABOR	AER UNIT	AER LABOR
SHELTER	6	131666	\$789,996.00				
Shelter Labor (includes splice)	6			20000	\$120,000.00	20000	\$120,000.00
DUCT							
2" SDR11 smooth outside, silicore inside	181,760	\$1.4560	\$264,642.56				
1.25" SDR11 smooth outside, silicore inside	901,827	\$0.7020	\$633,082.55				
2" duct couplings	500	\$7.0890	\$3,544.50				
1.25" duct couplings	1,000	\$4.6560	\$4,656.00				
Path Labor	729,500			17	\$12,401,500.00	12	\$8,754,000.00
VAULTS							
30" x 48" x 36" T22 split lid poly concrete	500	\$876.0000	\$438,000.00				
17" x 30" x 18" T15 poly concrete	3,000	\$219.3110	\$657,933.00				
14" x 19" x 12" HDPE	3,000	\$46.1670	\$138,501.00				
Vault labor	7,106			150	\$1,065,900.00		
CABLE							
72F single armored loose tube	78,000	\$0.4700	\$36,660.00				
96F single armored loose tube	5,000	\$0.6100	\$3,050.00				
144F single armored ribbon	30,000	\$0.8320	\$24,960.00				
288 single armored ribbon	52,000	\$1.6260	\$84,552.00				
432 single armored ribbon	11,000	\$2.2880	\$25,168.00				
864 single armored ribbon	210,000	\$4.2760	\$897,960.00				
2500LB 3/4" mule tape	386,000	\$0.0389	\$15,015.40				
Cable Labor	386,000			1.5	\$579,000.00		
SPLICE ENCLOSURES							
FOSC600-D8R-R2-1-M4V	120	\$478.6700	\$57,440.40				
FOSC450-D6-6-72-1-D6V	240	\$364.6700	\$87,520.80				
FOSC-ACC-D-TRAY-RIBN-24	1,500	\$33.8380	\$50,757.00				
FAK-MULDRP-45-SEAL-FLAT4 (450)	400	\$24.1400	\$9,656.00				
FAK-MULDRP-45-3-DRP (450)	300	\$12.9900	\$3,897.00				
FAK-MULDRP-45-3/CBL-ATT (600)	200	\$15.2800	\$3,056.00				
FAK-MULDRP-45-4P/CBL-ATT (600)	300	\$17.3200	\$5,196.00				
FAK-MULDRP-45-4W-DRP (450 tape)	100	\$10.7100	\$1,071.00				
FAK-MULDRP-45-4W/CBL-ATT (600 tape)	100	\$12.9900	\$1,299.00				
SMOUV-1120-02	10,000	\$0.1800	\$1,800.00				
SMOUV-1120-R2/12	8,000	\$0.7900	\$6,320.00				
Splice labor	324			52	\$16,848.00	52	\$16,848.00
LOCATE							
Rhino RDR72WOF0811TS9125	200	\$45.0000	\$9,000.00				
4' ground rod	200	\$11.2500	\$2,250.00				
Acorn nuts for ground rods	200	\$1.5000	\$300.00				
Green THHN 14 AWG	10,000	\$0.1610	\$1,610.00				
Locate Labor	200			17.5	\$3,500.00		
MULTI-SERVIC TERMINALS							
6 port w/ 100' tonable tail MST-06MH00-B0100U	283	\$114.6270	\$32,439.44				
6 port w/ 250' tonable tail MST-06MH00-B0250U	304	\$138.6380	\$42,145.95				
6 port w/ 500' tonable tail MST-06MH00-B0500U	688	\$191.3300	\$131,635.04				
6 port w/ 750' tonable tail MST-06MH00-B0750U	602	\$231.3510	\$139,273.30				
6 port w/ 1000' tonable tail MST-06MH00-B1000U	333	\$271.4050	\$90,377.87				
6 port w/ 1500' tonable tail MST-06MH00-B1500U	277	\$364.1080	\$100,857.92				
MST labor	2,487			50	\$124,350.00		
RACK							
COSC 760242402 ODF-FF19CM-36RU-SP	6	\$3,720.9620	\$22,325.77				
COSC ODF-FF19CM36RU RACK	12	\$2,699.2220	\$32,390.66				
COSC FOSC-ACC-D-TRAY-RR-288-KIT	32	\$33.8380	\$1,082.82				
Rack Labor (includes splice)	6			6000	\$36,000.00	6000	\$36,000.00
TOTALS			\$4,851,422.98		\$14,347,098.00		\$8,926,848.00
CORE ELECTRONICS							
Open Access Cloud	1	30000	30000				
Provider Edge	1	3500	3500				
Core Switching	2	7600	15200				
Misc (optics, cables and jumpers)	20	32	640				
TOTAL			\$49,340.00				
UG Material Total		\$4,900,762.98					
AER Material Total		\$3,994,837.37					
UG Labor Total		\$14,347,098.00					
AER Labor Total		\$8,926,848.00					
UG COMMON GRAND TOTAL		\$19,247,860.98					
AER COMMON GRAND TOTAL		\$12,921,685.37					
PERCENTAGE SAVINGS		-33%					

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST	UG UNIT	UG LABOR	AER UNIT	AER LABOR
<b>DROP</b>							
.75" SDR13.5 duct	4,265,032	0.45	\$1,919,264.40				
500' drop cable	8,062	109.00	\$878,758.00				
Slack storage box	8,062	13.54	\$109,159.48				
Drop termination	8,062	3.50	\$28,217.00				
Virtual Broadband Gateway (includes, jumper & optic)	8,062	350.00	\$2,821,700.00				
Drop labor	8,062			400	\$ 3,224,800.00	200	\$ 1,612,400.00
Install labor	8,062			90	\$ 725,580.00	90	\$ 725,580.00
Access port	8,062	50.00	\$403,100.00				
<b>TOTALS</b>			<b>\$6,160,198.88</b>		<b>\$ 3,950,380.00</b>		<b>\$ 2,337,980.00</b>

ACCESS PORT CALCULATION (based on 8062)

48 port access switch	168	1,600.00	\$268,800.00
Small Form Pluggable (SFP optic)	8,062	14.00	\$112,868.00
Jumper	8,062	2.00	\$16,124.00
	<b>TOTAL</b>		<b>\$397,792.00</b>

AVG cost per SUB \$49.34

GRAND TOTAL UG \$10,110,578.88 \$1,254.10 average per connected subscriber

GRAND TOTAL AER \$6,578,914.48 \$816.04 average per connected subscriber

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Shelter	1	85000	85000
Racking - Termination	1	3720.96	3720.96
Racking - Electronics	2	2699.22	5398.44
Splice Trays	15	33.84	507.6
Termination Panels	6	1274	7644
Generator	1	20000	20000
Power	1	2400	2400
Electronics	1	6995	6995
	TOTAL		131666

#### TERMINATION PANELS

4RU Enclosure	1	230	230
FHD Adapter LC 24F	12	19	228
Ribbon Pigtails	24	34	816
	TOTAL		1274

#### ELECTRONICS

Console management	1	2325	2325
In band management	1	530	530
Top Of Rack	1	3500	3500
Miscellaneous (optics, jumpers)	20	32	640
	TOTAL		6995