



# **Comprehensive Community Infrastructure** **Budget Narrative Template**

**Applicant Name: Mid-Atlantic Broadband Cooperative**

**EasyGrants Number: 7280**

**Organization Type: Cooperative or Mutual**

**Proposed Period of Performance: August 1, 2010 – September 30, 2013**

**Total Project Costs: \$12,529,059**

**Total Federal Grant Request: \$10,023,247**

**Total Matching Funds (Cash): \$2,505,812**

**Total Matching Funds (In-Kind): \$0**

**Total Matching Funds (Cash + In-Kind): \$2,505,812**

**Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 20%**

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## **1. Administrative and legal expenses - \$418,200**

- Legal expenses for drafting and executing contracts with vendors are estimated to be \$40,000 (100 hours @ \$400/hour).

- Grant administration is estimated at \$93,600 (3,120 hours @ \$30/hour).

-Project management costs are estimated at \$249,600 (6,240 hours @ \$40/hour).

-Grant preparation costs are estimated at \$35,000 which is based on \$15,000 in network conceptual design, \$10,000 in mapping costs, and \$10,000 in staff administrative time.

- Matching funds for this will be 20% of \$418,200 or \$83,640; matching funds will be split equally between the applicant and ODU Foundation.

## **2. Land, structure, rights-of-way, appraisals, etc. - \$332,000**



- Along the course of the proposed fiber route, four 12'x20' concrete shelters will be required at strategic locations to house fiber multiplexing equipment. Each of these sites will require a 45 kW generator for backup power.

- Matching funds for this will be 20% of \$332,000 or \$66,400; matching funds will be split equally between the applicant and ODU Foundation.

### **3. Relocation expenses and payment - \$0**

- There are no expenses of this kind on the project.

### **4. Architectural and engineering fees - \$186,000**

- While the basic routes of the proposed fiber cables and structures have been identified, MBC will engage contract OSP Engineering firm(s) to provide detailed OSP construction prints. The current average cost per mile for OSP engineers for MBC is \$1,094 per mile, and with the project encompassing ~170 miles, the estimated OSP engineering costs will be \$186,000.

- Matching funds for this will be 20% of \$186,000 or \$37,200; matching funds will be split equally between the applicant and ODU Foundation.

### **5. Other architectural and engineering fees - \$50,000**

- Before construction of the project can begin, an environmental assessment will be required, and the cost for an Environmental Engineering firm to conduct this assessment is \$50,000.

- Matching funds for this will be 20% of \$50,000 or \$10,000; matching funds will be split equally between the applicant and ODU Foundation.

### **6. Project inspection fees - \$145,600**

- During the construction phase of the project, two project inspectors will be engaged to ensure that the contractors are constructing the project to the required standards, and that all state, local, and federal regulations are being observed.



-The estimated cost was calculated using the assumption that we construction phase would last one year resulting in 4,160 manhours at \$35/hour for the budgeted amount of \$145,600.

- Matching funds for this will be 20% of \$145,600 or \$29,120; matching funds will be split equally between the applicant and ODU Foundation.

**7. Site work - \$200,000**

- Four concrete shelters will be placed on municipal property to house MBC transport equipment and fiber terminations. Historical pricing for site preparation work is \$50,000 for site preparation and installing the shelter and generator.

- Matching funds for this will be 20% of \$200,000 or \$40,000; matching funds will be split equally between the applicant and ODU Foundation.

**8. Demolition and removal - \$0**

- No demolition or removal is required on this project.

**9. Construction - \$8,260,120**

Item	Unit Basis	Unit Cost	Units	Cost
144 Fiber Cable	Foot	\$1.45	723,276	\$1,048,750
24 Fiber Cable	Foot	\$0.470008	177,114	\$83,245
Hand holes	Each	\$649.00	133	\$86,317
Pole Line Hardware/Strand	Foot	\$0.40	112,768	\$45,107
Cable Route Markers	Each	\$27.29	1,375	\$37,524
Splice Cases	Each	\$475	79	\$37,525
Buried Cable Placement	Foot	\$7.00	774,372	\$5,420,604
Aerial Cable Placement	Foot	\$4.75	112,768	\$535,648
Bridge Attachments	Foot	\$60.00	13,250	\$795,000
Building Conduits	Each	\$1,500.00	28	\$42,000
Splicing Labor	Each	\$1,200.00	107	\$128,400
<b>Total Cost</b>				<b>\$8,260,120</b>



-This work will be completed by MBC contractors.

- Matching funds for this will be 20% of \$8,260,120 or \$1,652,024; matching funds will be split equally between the applicant and ODU Foundation.

**10. Equipment - \$2,937,139**

Item	Units	Unit Cost	Cost
170 Ah Batteries	28	\$306	\$8,568
55 Ah Batteries	4	\$148	\$592
Nortel 6110	29	\$4,500	\$130,500
Nortel 6130	4	\$8,000	\$32,000
Nortel 6500	4	\$150,000	\$600,000
Nortel OC-48 Cards (at existing nodes)	8	\$9,500	\$76,000
Infinera DWDM 3 Way System	2	\$447,558	\$895,116
Infinera DWDM 2 Way System	1	\$287,927	\$287,927
Infinera BMM/XLM Cards (at existing nodes)	2	\$116,754	\$233,508
Infinera TAM Cards	12	\$29,756	\$357,072
Infinera OLA	4	\$49,514	\$198,056
Ethernet Switch	4	\$7,500	\$30,000
Fiber Panels - Nodes	9	\$700	\$6,300
Fiber Panels - Anchor Location	29	\$350	\$10,150
Installation Labor	358	\$75	\$26,850
Equipment Cabinet	1	\$9,500	\$9,500
Valere DC System (100 amp)	1	\$3,500	\$3,500
Valere DC System (200 amp)	6	\$4,000	\$24,000
Wilmore Inverter	3	\$2,500	\$7,500
<b>Grand Total</b>			<b>\$2,937,139</b>

-Matching funds for this will be 20% of \$2,937,139 or \$587,428; matching funds will be split equally between the applicant and ODU Foundation.

**11. Miscellaneous - \$0**

- No expenses of this type will be required on this project.



**13. Contingencies - \$0**

- Contingencies are an unallowable expenditures under BTOP.

**15. Project (program) income - \$0**

- The value for this line-item on the SF-424C is \$0. Please do not provide an estimated Project (program income) on the SF-424C.

**Addendum**

- Very few indirect costs are allowable through BTOP. If any allowable indirect costs and/or fringe benefits are included in the budget, please provide a copy of your existing Negotiated Indirect Cost Recovery Agreement (NICRA), if available. If the NICRA is applied accordingly in the budget, there is no need to justify the costs. If a NICRA is not available or is not consistent with the rates/calculations in the budget, please provide an explanation of how the amounts were calculated. Please clearly list the manner in which indirect costs are calculated in the budget.



**Note:** Verify that indirects are calculated correctly and are eligible BTOP costs. To clarify, reasonable indirect costs under BTOP are only allowable for Full Time Employees (FTEs) associated with the construction, deployment, or installation of facilities or equipment used to provide broadband service.

## **BTOP Comprehensive Community Infrastructure Detailed Budget**

Please complete the General Budget Overview and Detailed Project Costs worksheets.

***Please refer to the Comprehensive Community Infrastructure Grant Guidance for detailed instructions on the completing this upload.***

Applicants are required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Applicants should not alter the layout of the provided templates, except to insert additional line-items as needed in the Detailed Project Costs worksheet.

### General Budget Overview

Budget	Federal Funding Request	Matching Funds (Cash)	Matching Funds (In-Kind)	Budget TOTAL	Last Mile Allocation	Middle Mile Allocation	Allocated TOTAL
Network & Access Equipment (switching, routing, transport, access)	\$2,349,711	\$587,428		<b>\$2,937,139</b>		\$2,937,139.00	<b>\$2,937,139</b>
Outside Plant (cables, conduits, ducts, poles, towers, repeaters, etc.)	\$6,608,096	\$1,652,024		<b>\$8,260,120</b>		\$8,260,120.00	<b>\$8,260,120</b>
Buildings and Land – (new construction, improvements, renovations, lease)	\$265,600	\$66,400		<b>\$332,000</b>		\$332,000.00	<b>\$332,000</b>
Customer Premise Equipment (modems, set-top boxes, inside wiring, etc.)	\$0	\$0		<b>\$0</b>			<b>\$0</b>
Billing and Operational Support Systems (IT systems, software, etc.)	\$0	\$0		<b>\$0</b>			<b>\$0</b>
Operating Equipment (vehicles, office equipment, other)	\$0	\$0		<b>\$0</b>			<b>\$0</b>
Engineering/Professional Services (engineering design, project management, consulting, etc.)	\$639,840	\$159,960		<b>\$799,800</b>		\$799,800.00	<b>\$799,800</b>
Testing (network elements, IT system elements, user devices, test generators, lab furnishings, servers/computers, etc.)	\$0	\$0		<b>\$0</b>			<b>\$0</b>
Site Preparation	\$160,000	\$40,000		<b>\$200,000</b>		\$200,000.00	<b>\$200,000</b>
Other				<b>\$0</b>			<b>\$0</b>
<b>TOTAL BROADBAND SYSTEM:</b>	<b>\$10,023,247</b>	<b>\$2,505,812</b>	<b>\$0</b>	<b>\$12,529,059</b>	<b>\$0</b>	<b>\$12,529,059</b>	<b>\$12,529,059</b>
<b>Cost Share Percentage:</b>	<b>80.00%</b>	<b>20.00%</b>	<b>0.00%</b>				

## DETAIL OF PROJECT COSTS

PLEASE COMPLETE THE TABLE BELOW FOR THE DIFFERENT CATEGORIES OF EQUIPMENT THAT WILL BE REQUIRED FOR COMPLETING THE PROJECT. EACH CATEGORY SHOULD BE BROKEN DOWN TO THE APPROPRIATE LEVEL FOR IDENTIFYING UNIT COST

SERVICE AREA or COMMON NETWORK FACILITIES:	Match (Cash/In-kind)	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
<b>NETWORK &amp; ACCESS EQUIPMENT</b>				<b>\$2,937,139</b>	<b>\$0</b>	<b>\$2,937,139</b>	<b>\$2,937,139</b>		
<b>Switching</b>				\$0			\$0		
				\$0			\$0		
				\$0			\$0		
<b>Routing</b>	Ethernet Switch	Cash Match	\$7,500.00	4	\$30,000	\$30,000.00	\$30,000	10. Equipment	
					\$0		\$0		
					\$0		\$0		
<b>Transport</b>	Infinera DWDM 3 Way System	Cash Match	\$447,558.00	2	\$895,116	\$895,116.00	\$895,116	10. Equipment	
	Infinera DWDM 2 Way System	Cash Match	\$287,927.00	1	\$287,927	\$287,927.00	\$287,927	10. Equipment	
	Infinera BMM/XLM Cards (at existing nodes)	Cash Match	\$116,754.00	2	\$233,508	\$233,508.00	\$233,508	10. Equipment	
	Infinera OLA	Cash Match	\$49,514.00	4	\$198,056	\$198,056.00	\$198,056	10. Equipment	
	Infinera TAM Cards	Cash Match	\$29,756.00	12	\$357,072	\$357,072.00	\$357,072	10. Equipment	
	Nortel 6110	Cash Match	\$4,500.00	29	\$130,500	\$130,500.00	\$130,500	10. Equipment	
	Nortel 6130	Cash Match	\$8,000.00	4	\$32,000	\$32,000.00	\$32,000	10. Equipment	
	Nortel 6500	Cash Match	\$150,000.00	4	\$600,000	\$600,000.00	\$600,000	10. Equipment	
	Nortel OC-8 Cards (at existing nodes)	Cash Match	\$9,500.00	8	\$76,000	\$76,000.00	\$76,000	10. Equipment	
					\$0		\$0		
<b>Access</b>					\$0		\$0		
					\$0		\$0		
					\$0		\$0		
<b>Other</b>	Valere DC System (100 amp)	Cash Match	\$3,500.00	1	\$3,500	\$3,500.00	\$3,500	10. Equipment	
	Valere DC System (200 amp)	Cash Match	\$4,000.00	6	\$24,000	\$24,000.00	\$24,000	10. Equipment	
	170 Ah Batteries	Cash Match	\$306.00	28	\$8,568	\$8,568.00	\$8,568	10. Equipment	
	55 Ah Batteries	Cash Match	\$148.00	4	\$592	\$592.00	\$592	10. Equipment	
	Wilmore Inverter	Cash Match	\$2,500.00	3	\$7,500	\$7,500.00	\$7,500	10. Equipment	
	Fiber Panels - Anchor Institutions	Cash Match	\$350.00	29	\$10,150	\$10,150.00	\$10,150	10. Equipment	
	Fiber Panels - Nodes	Cash Match	\$700.00	9	\$6,300	\$6,300.00	\$6,300	10. Equipment	
	Equipment Cabinet	Cash Match	\$9,500.00	1	\$9,500	\$9,500.00	\$9,500	10. Equipment	
	Insallation Labor	Cash Match	\$75.00	358	\$26,850	\$26,850.00	\$26,850	10. Equipment	
					\$0		\$0		
<b>OUTSIDE PLANT</b>				<b>\$8,260,120</b>	<b>\$0</b>	<b>\$8,260,120</b>	<b>\$8,260,120</b>		
<b>Cables</b>	144 Fiber Cable	Cash Match	\$1.45	723,276	\$1,048,750	\$1,048,750.20	\$1,048,750	9. Construction	
	24 Fiber Cable	Cash Match	\$0.470008	177,114	\$83,245	\$83,245.00	\$83,245	9. Construction	
					\$0		\$0		
<b>Conduits</b>	Building entrance conduits	Cash Match	1,500	28	\$42,000	\$42,000.00	\$42,000	9. Construction	
					\$0		\$0		
					\$0		\$0		
<b>Ducts</b>					\$0		\$0		
					\$0		\$0		
					\$0		\$0		

<b>Poles</b>					\$0			\$0	
					\$0			\$0	
					\$0			\$0	
<b>Towers</b>					\$0			\$0	
					\$0			\$0	
					\$0			\$0	
<b>Repeaters</b>					\$0			\$0	
					\$0			\$0	
					\$0			\$0	
<b>Other</b>	Pole Line Hardware/6M Strand	Cash Match	\$0.40	112,768	\$45,107	\$45,107.20	\$45,107	\$45,107	9. Construction
	Cable Route Markers	Cash Match	\$27.29	1,375	\$37,524	\$37,523.75	\$37,524	\$37,524	9. Construction
	Splice Cases	Cash Match	\$475.00	79	\$37,525	\$37,525.00	\$37,525	\$37,525	9. Construction
	Buried Cable Placement	Cash Match	\$7.00	774,372	\$5,420,604	\$5,420,604.00	\$5,420,604	\$5,420,604	9. Construction
	Aerial Cable Placement	Cash Match	\$4.75	112,768	\$535,648	\$535,648.00	\$535,648	\$535,648	9. Construction
	Bridge Attachments	Cash Match	\$60.00	13,250	\$795,000	\$795,000.00	\$795,000	\$795,000	9. Construction
	Splicing Labor	Cash Match	\$1,200.00	107	\$128,400	\$128,400.00	\$128,400	\$128,400	9. Construction
	Hand Holes	Cash Match	\$649.00	133	\$86,317	\$86,317.00	\$86,317	\$86,317	9. Construction

COMMON NETWORK		Match (Cash/In-kind)	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
<b>BUILDINGS</b>					<b>\$332,000</b>	<b>\$0</b>	<b>\$332,000</b>	<b>\$332,000</b>		
<b>New Construction</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Pre-Fab Huts</b>	Node Shelter (12' x 20')	Cash Match	\$58,000.00	4	\$232,000		\$232,000.00	\$232,000	2. Land, structures	
					\$0			\$0		
					\$0			\$0		
<b>Improvements &amp;</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Other</b>	45 kW Generator	Cash Match	\$25,000.00	4	\$100,000		\$100,000.00	\$100,000	2. Land, structures	
					\$0			\$0		
					\$0			\$0		
<b>CUSTOMER PREMISE EQUIPMENT</b>					<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
<b>Modems</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Set Top Boxes</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Inside Writing</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Other</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>BILLING SUPPORT AND OPERATIONS SUPPORT SYSTEMS</b>					<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
<b>Billing Support</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Customer Care</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Other Support</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		

COMMON		Match	Unit Cost	No. of	Total Cost	Last Mile	Middle Mile	Allocated Total	SF-424C Budget	Support of Reasonableness
<b>OPERATING EQUIPMENT</b>					<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
<b>Vehicles</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Office Equipment /</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Other</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>PROFESSIONAL SERVICES</b>					<b>\$799,800</b>	<b>\$0</b>	<b>\$799,800</b>	<b>\$799,800</b>		
<b>Engineering</b>	OSP Engineering	Cash Match	\$1,000.00	186	\$186,000		\$186,000	\$186,000	4. Architectural and engr.	
					\$0		\$0	\$0		
					\$0		\$0	\$0		
<b>Project</b>	Project Management	Cash Match	\$6,240.00	40	\$249,600		\$249,600	\$249,600	1. Admin and Legal	
	Project Inspection	Cash Match	\$4,160.00	35	\$145,600		\$145,600	\$145,600	6. Inspection fees	
	Grant Administration	Cash Match	\$3,120.00	30	\$93,600		\$93,600	\$93,600	1. Admin and Legal	
<b>Consulting</b>	Environmental Assessment	Cash Match	\$50,000.00	1	\$50,000		\$50,000	\$50,000	5. Other archit. and engr.	
					\$0		\$0	\$0		
					\$0		\$0	\$0		
<b>Other</b>	Legal	Cash Match	\$400.00	100	\$40,000		\$40,000	\$40,000	1. Admin and Legal	
	Grant Preparation	Cash Match	\$35,000.00	1	\$35,000		\$35,000	\$35,000	1. Admin and Legal	
					\$0		\$0	\$0		
<b>TESTING</b>					<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		
<b>Network</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>IT System</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>User Devices</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Test Generators</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Lab</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>Servers/Computer</b>					\$0			\$0		
					\$0			\$0		
					\$0			\$0		

COMMON		Match	Unit Cost	No. of	Total Cost	Last Mile	Middle Mile	Allocated Total	SF-424C Budget	Support of Reasonableness
<b>OTHER UPFRONT COSTS</b>					<b>\$200,000</b>	<b>\$0</b>	<b>\$200,000</b>	<b>\$200,000</b>		
Site	Site preparation for node shelters	Cash Match	\$50,000.00	4	\$200,000		\$200,000	\$200,000	7. Site work	
					\$0			\$0		
					\$0			\$0		
Other					\$0			\$0		
					\$0			\$0		
					\$0			\$0		
<b>PROJECT TOTAL:</b>					<b>\$12,529,059</b>	<b>\$0</b>	<b>\$12,529,059</b>	<b>\$12,529,059</b>		