

061510

General Budget Overview
Upload Revision

MCNC Easy Grants ID #4218

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)	\$6,803,035			\$6,803,035		\$6,803,034.50	\$6,803,035
Outside Plant (cables, conduits, ducts, poles, towers, repeaters, etc.)	\$36,822,836		\$5,324,680	\$42,147,516		\$42,147,516.00	\$42,147,516
Buildings and Land – (new construction, improvements, renovations, lease)	\$2,691,000		\$710,000	\$3,401,000		\$3,401,000.00	\$3,401,000
Customer Premise Equipment (modems, set-top boxes, inside wiring, etc.)	\$103,900			\$103,900		\$103,900.00	\$103,900
Billing and Operational Support Systems (IT systems, software, etc.)	\$200,000			\$200,000		\$200,000.00	\$200,000
Operating Equipment (vehicles, office equipment, other)	\$50,000			\$50,000		\$50,000.00	\$50,000
Engineering/Professional Services (engineering design, project management, consulting, etc.)	\$27,954,439	\$24,300,000		\$52,254,439		\$52,254,438.77	\$52,254,439
Testing (network elements, IT system elements, user devices, test generators, lab furnishings, servers/computers, etc.)	\$15,000			\$15,000		\$15,000.00	\$15,000
Site Preparation	\$360,000			\$360,000		\$360,000.00	\$360,000
Other	\$757,080			\$757,080		\$757,080.00	\$757,080
TOTAL BROADBAND SYSTEM:	\$75,757,289	\$24,300,000	\$6,034,680	\$106,091,969	\$0	\$106,091,969	\$106,091,969
Cost Share Percentage:	71.41%	22.90%	5.69%				

**061510 Budget Narrative Template
Upload Revision**

MCNC Easy Grants ID #4218



Comprehensive Community Infrastructure Budget Narrative Template

Applicant Name: MCNC

EasyGrants Number: 4218

Organization Type: Non-profit 501(c)(3)

Proposed Period of Performance: 9/30/10 – 9/30/13

Total Project Costs: \$106,091,969

Total Federal Grant Request: \$ 75,757,289

Total Matching Funds (Cash): \$ 24,300,000

Total Matching Funds (In-Kind): \$ 6,034,680

Total Matching Funds (Cash + In-Kind): \$ 30,334,680

Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 28.6%

1. Administrative and legal expenses - \$757,080

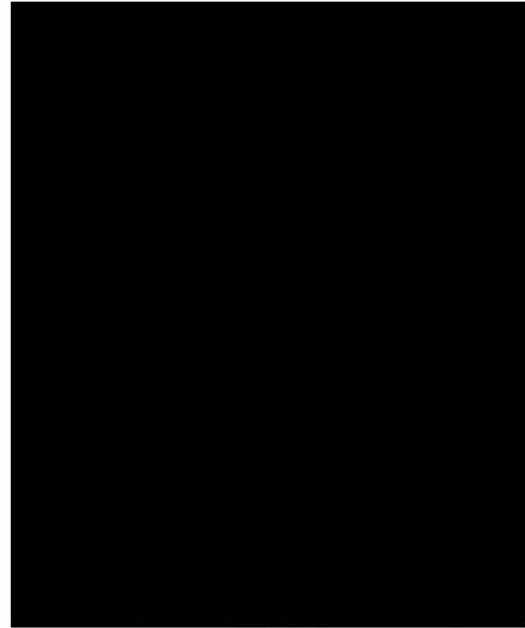
MCNC considers salary information to be proprietary and has therefore hidden employees rate information on the below. If this proceeds to due diligence this information will be provided at that time. Note: the hours shown are the rate equivalent hours: \$50 * 40 hrs = \$200, if the person actually works 80 hours that week their apparent hourly rate is \$25/hr. For this schedule the rate has been left intact and their hours flexed (rate equivalent hours) to match the actual cost estimated on the BTOP proposal process.

Labor:

Title	Hrly Rate	Rate Equivalent Hours	Total 1/22-Submission
Lead Systems Engineer			
Operations Manager			
Paralegal			
Communications Associate			
President			
Manager Client Network Engineering			
K12 Advocate			



Director Human Resources
 Manager Knowledge Information Systems
 Chief Architect
 Chief Technical Officer
 VP Community Support
 Director Program Management
 Associate Video Network Operator
 Chief Financial Officer
 Director Advanced Services Development
 Director of Communications
 Senior Advanced Services Systems Analyst
 Senior Network Management Engineer
 Senior Lead Network Engineer
 ERC Level 1 Labor
 ERC Level 2 Labor
 Temp Labor
 Documentation and Web Content Manager
 Due Diligence Labor



2,372.03 210,580

Legal:

Due Diligence/title search on donated conduit & other compliance advice			75,000
External counsel estimates to prepare/review federally compliant documents for two entities:			180,000
Engineering RFP			
Engineering Contract			
Construction RFP			
Construction Contract			
Equipment RFP			
IRU			
Sub-recipient Agreement			
Fiber Swap Agreement			
O&M Agreement			

A133 Audit:

2 entities 3 years rate quote from external auditor	6	4,500.00	27,000
---	---	----------	--------

Consultants:

BBCGI	Statistics	48,000
UNC-CH School of Government	Mapping	5,000
UNC-CH Kenan Institute	community outreach/data analysis	185,000
e-NC	service provider analysis/mapping	3,000
ONUG	support	20,000
	route estimates	

Travel/Meetings/Workshops: 3,500

Total Administrative and Legal Expenses 757,080



2. Land, structure, rights-of-way, appraisals, etc. - \$3,401,000

	Unit Cost	Qty	Total
Controlled Environment for placement at amplification sites	85,000	23	1,955,000
Environment controlled optical enclosure	100,000	2	200,000
DC Distribution System to Power POP Elements	4,000	24	96,000
Land Acquisition	40,000	20	800,000
Land Acquisition	50,000	3	150,000
Land Acquisition	100,000	2	200,000
Total			3,401,000

- In-kind matching - \$710,000 - MCNC has received letters from both the University of North Carolina System and the North Carolina Community College System offering donations of the use of their facilities where amplification sites will be needed. MCNC currently expects to be able to use 19 donated sites, but included only 17 as in-kind donated in the proposal. A review of each facility will be needed prior to a final count being known. Where possible, MCNC plans to utilize these donated sites.

3. Relocation expenses and payment - \$0

4. Architectural and engineering fees - \$7,425,748

The engineering and project management fees were derived through consultation with industry experts. Some miles are pure construction, while some require simply the addition of fiber into conduit with some conduit repair. The specific estimated route which was mapped to maximize direct fiber connections to Community Anchor Institutions. The route through the various counties and the estimates of miles route were derived from physical drives of roads included in the route and via detailed mapping (details available upon request-see detail project budget). The total of the routes produce a weighted average rate of \$1.0905/ft of build. Specific routes total \$6,975,748 of engineering and professional project management and quality control fees.

To this, environmental assessment fees of \$450,000 were added which represents industry standard experience of costs over 4 long regions at \$100,000 each and 1 short build at \$50,000.

5. Other architectural and engineering fees - \$0

6. Project inspection fees - \$7,205



- MCNC's sub-recipient partner, ERC has provided for \$0.50 per mile (government value) for mileage reimbursement for 14,410 miles. This is the total miles required to rideout each build multiple times (during construction and upon completion) for inspection purposes.

7. Site work - \$0

8. Demolition and removal - \$0

9. Construction - \$87,329,001

-MCNC used a range of \$.7/ft - \$.86/ft for armoured cable (based on number of strands), \$.93/ft to install the fiber into the conduit, \$1.298/ft for conduit, \$5.71/ft for conduit installation, hand holds (installed) at \$1,036/2,000ft, pole attachment applications at \$100 each, Pole attachments at \$660 - \$1,531 each, easements at \$6/ft, splicing at \$1,075/18,000 ft plus railroad permits at \$8,000 - \$10,000 per crossing plus easements. These amounts were derived by MCNC's work with industry experts. Based on the mapped routes by each region's specific needs of the above and railroad crossings, easements, and permits a fairly precise estimate by region was derived. A weighted average rate for the overall build of is \$11.4332/foot. This amounts to \$74,135,450 of the construction. Details by region are available upon request. In addition to the construction, in those areas where IRU's were available that supported the desired route, MCNC negotiated letters of intent for its procurment of IRUs as part of the NCRBI. MCNC's proposal includes a

[REDACTED]

[REDACTED] a section of conduit purchased from P&W for [REDACTED] donated fiber from ERC valued at [REDACTED] and donated conduit valued at [REDACTED] (see in-kind match paragraph below). The total of these items is \$13,193,551. These IRUs are evidence of the NCRBI exhausting every means to avoid overbuilding existing fiber.

- MCNC has received commitments of \$24,300,000 in cash match. This match was not provided for specific line items, but for the project's overall benefits. Preference would have been to proportion the match over every line item, but the detailed budget spreadsheet does not provide that capability so MCNC chose to apply it to the construction and architectural categories using the highest cost lines items for the most part. The Construction category thereby ended up being the recipient of all of the cash match.

- The Albemarle Pamlico Economic Development Corporation (APEC), a public economic development organization, has donated existing fiber optic conduit in the northeast region of the state to MCNC. This conduit is a key part of the NCRBI plan. The conduit remained unused as the financial resources to complete a previously



planned middle mile project in the region could not be raised. The previous project exhausted funds in 2004 after much of the conduit had been constructed but no fiber had been placed. The NCRBI, if funded, will assist in meeting the original purpose of the conduit, to build a middle mile in the northeast. This is an in-kind match valued at \$4,746,000. The value was derived by taking the cost of burying new conduit. Additional costs were added to blow fiber in and any necessary repairs. But for this conduit this proposal would have had to include more costly new construction.

-ERC, in its sub-recipient role, is contributing 8 strands of fiber from Asheville to Spruce Pine to meet MCNC customer requirements for resilient paths. This fiber is an in-kind match and is currently valued at \$578,680.

10. Equipment - \$6,971,935

- MCNC's proposal includes the following equipment. MCNC's current plans are to purchase each item. If MCNC were to receive an award, if a lower cost lease option is identified, it would be favorably considered. The equipment budget was developed based on MCNC's installed base of Cisco DWDM equipment with which we were most familiar. Our intent is to use a competitive procurement process and select the best value. As such the specific components installed may differ from those shown here.

Description	Unit Cost	Qty	Total
Managed Media Converter	350	8	\$2,800
HP switches	\$500.00	14	\$7,000
CAI UPS	700	101	\$70,700
CAI-Installation of Equipment by MCNC	\$1,500.00	146	\$219,000
CAI Site Access SFP	\$1,680.00	161	\$270,480
XENpak expansion card	\$2,000.00	2	\$4,000
CAI-Router for Libraries, CC Satellite Sites,3400	\$2,100.00	71	\$149,100
15454 Optics for connection to fiber	\$2,520.00	151	\$380,520
Channelized SFPs	\$3,800.00	16	\$60,800
Cisco DWDM SFP	3800	8	\$30,400
Distribution / trunk switch	\$4,000.00	2	\$8,000
OSA/10GE flex	\$4,000.00	1	\$4,000
Backbone-Installation of Equipment by MCNC staff	\$5,000.00	21	\$105,000
GE Test Equipment	\$5,000.00	1	\$5,000
DWDM Handheld JDSU	\$6,000.00	1	\$6,000
Cisco 15216 Mux Demux	\$10,674.00	2	\$21,348
CAI-Router for Community Colleges Main Sites-3560	\$13,608.00	23	\$312,984
10Gbase-ZR XEN Pak	\$22,110.00	2	\$44,220
Staff Truck for Deployment	\$25,000.00	2	\$50,000
Crossponders	\$32,000.00	1	\$32,000
Crossponders for Ring Access at DWDM nodes, common 10G ring	\$32,000.00	37	\$1,184,000
Backbone-Common Elements to make Hickory, NC existing DWDM system 3-degree ROADM	\$37,000.00	1	\$37,000
Backbone-Common Elements to make Rocky Mount, NC existing DWDM system 3-degree ROADM	\$37,000.00	1	\$37,000
Backbone-Common Elements to make Wilmington, NC existing DWDM	\$37,000.00	1	\$37,000



BROADBAND TECHNOLOGY OPPORTUNITIES PROGRAM (BTOP)

system 3-degree ROADM			
Spare Crossponder equipment	\$37,930.00	1	\$37,930
Spare Transponder	\$37,930.00	1	\$37,930
Backbone-Common Elements to convert DWDM Node in Asheville to 3 Degree Crossponder	\$40,000.00	1	\$40,000
MultiRate Transponders	\$40,225.00	10	\$402,250
Backbone Common Elements required to incorporate BTOP round 2 transport at Western Ring in Charlotte	\$40,225.00	2	\$80,450
Backbone Common Elements required to incorporate BTOP round 2 transport on Eastern Ring in Rocky Mount	\$42,000.00	1	\$42,000
OSN 15454 – Burnsville	\$42,000.00	1	\$42,000
OSN 15454 – MH	\$71,608.75	1	\$71,609
OSN 15454 – HVL	\$71,608.75	1	\$71,609
OSN 15454 – HVL	\$73,230.00	1	\$73,230
Backbone-Common Elements to make Charlotte-Myer's, NC existing DWDM system 4-degree ROADM	\$74,000.00	1	\$74,000
Backbone-Common Elements for new Ahoskie, NC DWDM Node at Roanoke-Chowan CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Burnsville, NC Regeneration Site	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Columbia, NC DWDM Node	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Dodson, NC DWDM Node at Surry CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Hamlet, NC DWDM node at Richmond CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Kitty Hawk, NC DWDM Node	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Lumberton, NC DWDM Node at UNC-Pembroke Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Polkton, NC DWDM Node at South Piedmont CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Reidsville, NC DWDM Node at Rockingham CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Roanoke Island, NC DWDM Node	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Roxboro, NC DWDM Node at Piedmont CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Sanford, NC DWDM node at Central CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Sparta, NC DWDM Node at Wilkes CC-Alleghany Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Weldon, NC DWDM Node at Halifax CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements for new Whiteville, NC DWDM Node at Southeast CC Campus	\$80,000.00	1	\$80,000
Backbone-Common Elements to make Franklin County DWDM Node	\$80,000.00	1	\$80,000
New DWDM Node in Robbinsville	\$80,000.00	1	\$80,000
New DWDM Node in Robbinsville	\$80,000.00	1	\$80,000
OSN 15454 – Nebo	\$82,480.00	1	\$82,480
Spare 15454 equipment	\$106,942.50	1	\$106,943
Backbone Common Elements required to incorporate BTOP round 2 transport at Central Ring in Raleigh, Level3	\$113,400.00	1	\$113,400
OSN 15454 – AVL	\$118,512.50	1	\$118,513
Backbone-Common Elements for new Boone, NC DWDM Node at Appalachian State University	\$125,000.00	1	\$125,000
Backbone-Common Elements for new Elizabeth City, NC DWDM Node at Elizabeth City State University	\$125,000.00	1	\$125,000
Backbone-Common Elements for new Henderson, NC DWDM Node	\$125,000.00	1	\$125,000
Backbone-Common Elements for new Williamston, NC DWDM Node at Martin CC	\$125,000.00	1	\$125,000
CAI-Common elements for NCRC Site to serve Rowan Cabarrus CC	\$125,000.00	1	\$125,000



Spares		\$126,000.00	1	\$126,000
Cisco 7609		\$154,120.00	2	\$308,240
	Total			<u>\$6,971,935</u>

11. Miscellaneous - \$200,000

- MCNC's proposal includes fiber asset tracking software, operational management tools, and geographic information systems software. These items are estimated at \$200,000.

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.

061510 **Detail of Project Costs**
Upload Revision

MCNC Easy Grants ID #4218

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

NETWORK & ACCESS EQUIPMENT	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
Switching	Distribution / Trunk switch		\$4,000.00	2	\$8,000.00	\$0	\$6,803.035	\$6,803.035	Equipment	1x10GigE trunk capable switch and spare w
Switching	10Gbase-ZR XEN Pak		\$22,110.00	2	\$44,220.00		\$44,220.00	\$44,220.00	Equipment	1x10 gig (80km range) fiber port for trunk li
Switching	HP switches		\$500.00	14	\$7,000.00		\$7,000.00	\$7,000.00	Equipment	Required for end site multiple handoffs.
Routing	CAI-Router for Community Colleges, Main Campus-3560		\$13,608.00	3	\$40,824.00		\$40,824.00	\$40,824.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Libraries/CC Satellite Campuses-3400		\$2,100.00	11	\$23,100.00		\$23,100.00	\$23,100.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Community Colleges, Main Campus-3560 Hamlet Route		\$13,608.00	2	\$27,216.00		\$27,216.00	\$27,216.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Community Colleges, Main Sites-3560		\$13,608.00	2	\$27,216.00		\$27,216.00	\$27,216.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Libraries, CC Satellite Sites 3400		\$2,100.00	16	\$33,600.00		\$33,600.00	\$33,600.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Main Site Community Colleges		\$13,608.00	7	\$95,256.00		\$95,256.00	\$95,256.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Libraries, LEA's, CC Satellite Campuses		\$2,100.00	13	\$27,300.00		\$27,300.00	\$27,300.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Main Community College sites		\$13,608.00	9	\$122,472.00		\$122,472.00	\$122,472.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	CAI-Router for Libraries, LEA's, and CC sites		\$2,100.00	31	\$65,100.00		\$65,100.00	\$65,100.00	Equipment	CPE Termination Equipment to Provide GIG
Routing	Cisco 7609		\$154,120.00	2	\$308,240.00		\$308,240.00	\$308,240.00	Equipment	CPE Termination Equipment to Provide GIG (Layer 3+) traffic over entire network. inclu
Transport	Backbone-Common Elements to make Charlotte-Myer's, NC existing DWDM system 4-C		\$74,000.00	1	\$74,000.00		\$74,000.00	\$74,000.00	Equipment	Optical Backbone Transport Equipment, co
Transport	Backbone-Common Elements for new Polkton, NC DWDM Node at South Piedmont CC		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Lumberton, NC DWDM Node at UNC-Pembroke		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Whiteville, NC DWDM Node at Southeast CC Ca		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements to make Wilmington, NC existing DWDM system 3-degree		\$37,000.00	1	\$37,000.00		\$37,000.00	\$37,000.00	Equipment	Optical Backbone Transport Equipment, co
Transport	Backbone-Common Elements for new Hamlet, NC DWDM node at Richmond CC Camp		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Sanford, NC DWDM node at Central CC Campus		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	CAI-Common elements for NCRG Site to serve Rowan Cabarrus CC		\$125,000.00	1	\$125,000.00		\$125,000.00	\$125,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements to make Rocky Mount, NC existing DWDM system 3-deg		\$37,000.00	1	\$37,000.00		\$37,000.00	\$37,000.00	Equipment	Optical Backbone Transport Equipment, co
Transport	Backbone-Common Elements for new Williamston, NC DWDM Node at Martin CC		\$125,000.00	1	\$125,000.00		\$125,000.00	\$125,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Elizabeth City, NC DWDM Node at Elizabeth City		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Ahsokie, NC DWDM Node at Roanoke-Chowan C		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Kitty Hawk, NC DWDM Node		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Roanoke island, NC DWDM Node		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Columbia, NC DWDM Node		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements to make Franklin County DWDM Node		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements to make Hickory, NC existing DWDM system 3-degree R		\$37,000.00	1	\$37,000.00		\$37,000.00	\$37,000.00	Equipment	Optical Backbone Transport Equipment, co
Transport	Backbone-Common Elements for new Boone, NC DWDM Node at Appalachian State U		\$125,000.00	1	\$125,000.00		\$125,000.00	\$125,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Sparta, NC DWDM Node at Wilkes CC-Allegha		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Dodson, NC DWDM Node at Surry CC Campus		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Reidsville, NC DWDM Node at Rockingham CC C		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Roxboro, NC DWDM Node at Piedmont CC Cam		\$125,000.00	1	\$125,000.00		\$125,000.00	\$125,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements for new Henderson, NC DWDM Node		\$118,512.50	1	\$118,512.50		\$118,512.50	\$118,512.50	Equipment	ONS 15454 nodes with all cards. Includes e
Transport	OSN 15454 - AVL		\$71,608.75	1	\$71,608.75		\$71,608.75	\$71,608.75	Equipment	ONS 15454 nodes with all cards. Includes e
Transport	OSN 15454 - Burnsville		\$71,608.75	1	\$71,608.75		\$71,608.75	\$71,608.75	Equipment	ONS 15454 nodes with all cards. Includes e
Transport	OSN 15454 - Nebo		\$82,480.00	1	\$82,480.00		\$82,480.00	\$82,480.00	Equipment	ONS 15454 nodes with all cards. Includes e
Transport	OSN 15454 - HVL		\$73,230.00	1	\$73,230.00		\$73,230.00	\$73,230.00	Equipment	ONS 15454 nodes with all cards. Includes e
Transport	Spare 15454 equipment		\$106,942.50	1	\$106,942.50		\$106,942.50	\$106,942.50	Equipment	spare parts required for managing service li
Transport	Crossponder		\$402,250.00	10	\$4,022,500.00		\$4,022,500.00	\$4,022,500.00	Equipment	-10GE distribution switch to support protecte
Transport	Spare Crossponder equipment		\$37,930.00	1	\$37,930.00		\$37,930.00	\$37,930.00	Equipment	spare parts required for managing service li
Transport	Multirate Transponders		\$40,225.00	2	\$80,450.00		\$80,450.00	\$80,450.00	Equipment	2 transponders and spare. Used for single
Transport	Spare Transponder		\$37,930.00	1	\$37,930.00		\$37,930.00	\$37,930.00	Equipment	spare required for managing service levels
Transport	Channelized SFPs		\$3,800.00	16	\$60,800.00		\$60,800.00	\$60,800.00	Equipment	DWDM SFP cost - intended for use in the 7
Transport	Backbone-Common Elements for new Burnsville, NC Regeneration Site		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone-Common Elements to convert DWDM Node in Asheville to 3 Degree		\$40,000.00	1	\$40,000.00		\$40,000.00	\$40,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	Backbone Common Elements required to incorporate BTOP round 2 transport on East		\$42,000.00	1	\$42,000.00		\$42,000.00	\$42,000.00	Equipment	Required modifications to existing DWDM s
Transport	Backbone Common Elements required to incorporate BTOP round 2 transport at West		\$42,000.00	1	\$42,000.00		\$42,000.00	\$42,000.00	Equipment	Required modifications to existing DWDM s
Transport	Backbone Common Elements required to incorporate BTOP round 2 transport at Centra		\$113,400.00	1	\$113,400.00		\$113,400.00	\$113,400.00	Equipment	Required modifications to existing DWDM s
Transport	Spares		\$126,000.00	1	\$126,000.00		\$126,000.00	\$126,000.00	Equipment	System Spares for new types of hardware i
Transport	New DWDM Node in Robbinsville		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Transport	New DWDM Node in Robbinsville		\$80,000.00	1	\$80,000.00		\$80,000.00	\$80,000.00	Equipment	Optical Backbone Transport Node, 80-125 I
Access	CAI Site Access SFP		\$1,680.00	23	\$38,640.00		\$38,640.00	\$38,640.00	Equipment	Client side optics for use in CPE

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
Access	Crossponders for Ring Access at DWDM nodes, common 10G ring		\$32,000.00	5	\$160,000		\$160,000.00		\$160,000.00	\$160,000.00	10. Equipment	Optical interface for use in DWDM node to 1
Access	15454 Optics for connection to fiber, Wilmington-Charlotte		\$2,520.00	23	\$57,960		\$57,960.00		\$57,960.00	\$57,960.00	10. Equipment	Client side optics for use in DWDM node
Access	CAI Site Access SFP-Hamlet-Raleigh Route		\$1,680.00	6	\$10,080		\$10,080.00		\$10,080.00	\$10,080.00	10. Equipment	Client side optics for use in CPE
Access	Crossponders for Ring Access at DWDM nodes, common 10G ring, Hamlet-Charlotte R		\$32,000.00	4	\$128,000		\$128,000.00		\$128,000.00	\$128,000.00	10. Equipment	Optical interface for use in DWDM node to 1
Access	15454 Optics for connection to fiber, Hamlet-Charlotte Route		\$2,520.00	6	\$15,120		\$15,120.00		\$15,120.00	\$15,120.00	10. Equipment	Client side optics for use in DWDM node
Access	CAI Site Access SFP		\$1,680.00	31	\$52,080		\$52,080.00		\$52,080.00	\$52,080.00	10. Equipment	Client side optics for use in CPE
Access	Crossponders for Ring Access at DWDM nodes, common 10G ring		\$32,000.00	9	\$288,000		\$288,000.00		\$288,000.00	\$288,000.00	10. Equipment	Optical interface for use in DWDM node to 1
Access	15454 Optics for connection to fiber		\$2,520.00	31	\$78,120		\$78,120.00		\$78,120.00	\$78,120.00	10. Equipment	Client side optics for use in DWDM node
Access	CAI Site Access SFP		\$1,680.00	39	\$65,520		\$65,520.00		\$65,520.00	\$65,520.00	10. Equipment	Client side optics for use in CPE
Access	Crossponders for Ring Access at DWDM nodes, common 10G ring-Northeast		\$32,000.00	11	\$352,000		\$352,000.00		\$352,000.00	\$352,000.00	10. Equipment	Optical interface for use in DWDM node to 1
Access	15454 Optics for connection to fiber		\$2,520.00	39	\$98,280		\$98,280.00		\$98,280.00	\$98,280.00	10. Equipment	Client side optics for use in DWDM node
Access	CAI Site Access SFP		\$1,680.00	52	\$87,360		\$87,360.00		\$87,360.00	\$87,360.00	10. Equipment	Client side optics for use in CPE
Access	Crossponders for Ring Access at DWDM nodes, common 10G ring		\$32,000.00	8	\$256,000		\$256,000.00		\$256,000.00	\$256,000.00	10. Equipment	Optical interface for use in DWDM node to 1
Access	15454 Optics for connection to fiber		\$2,520.00	52	\$131,040		\$131,040.00		\$131,040.00	\$131,040.00	10. Equipment	Client side optics for use in DWDM node
Access	Crossponders		\$32,000.00	1	\$32,000		\$32,000.00		\$32,000.00	\$32,000.00	10. Equipment	Optical interface for use in DWDM node to 1
Access	CAI Site Access SFP		\$1,680.00	10	\$16,800		\$16,800.00		\$16,800.00	\$16,800.00	10. Equipment	Client side optics for use in DWDM node
Other	Backbone-Installation of Equipment by MCNC staff		\$5,000.00	7	\$35,000		\$35,000.00		\$35,000.00	\$35,000.00	10. Equipment	MCNC Core Node Installation Fee
Other	CAI-Installation of Equipment by MCNC		\$1,500.00	30	\$45,000		\$45,000.00		\$45,000.00	\$45,000.00	10. Equipment	MCNC CPE Node Installation Fee
Other	Backbone-Installation of Equipment by MCNC staff		\$5,000.00	7	\$35,000		\$35,000.00		\$35,000.00	\$35,000.00	10. Equipment	MCNC Core Node Installation Fee
Other	CAI-Installation of Equipment by MCNC		\$1,500.00	39	\$58,500		\$58,500.00		\$58,500.00	\$58,500.00	10. Equipment	MCNC CPE Node Installation Fee
Other	CAI-Installation of Equipment by MCNC		\$1,500.00	52	\$78,000		\$78,000.00		\$78,000.00	\$78,000.00	10. Equipment	MCNC CPE Node Installation Fee
Other	Backbone-Installation of Equipment by MCNC staff		\$5,000.00	7	\$35,000		\$35,000.00		\$35,000.00	\$35,000.00	10. Equipment	MCNC Core Node Installation Fee
Other	CAI-Installation of Equipment by MCNC		\$1,500.00	25	\$37,500		\$37,500.00		\$37,500.00	\$37,500.00	10. Equipment	MCNC CPE Node Installation Fee
Other	XENpak expansion card		\$2,000.00	2	\$4,000		\$4,000.00		\$4,000.00	\$4,000.00	10. Equipment	1 expansion card for 10G ports and span
Other	Cisco 15216 Mux Demux		\$10,674.00	2	\$21,348		\$21,348.00		\$21,348.00	\$21,348.00	10. Equipment	required to support DWDM channels
			\$0		\$0		\$0		\$0	\$0		
OUTSIDE PLANT												
Cables	Backbone-SMF 28 Armoured Cable		\$0.86	1349948	\$1,160,955		\$1,160,955.00		\$1,160,955.00	\$1,160,955.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Splice Cases		\$375.00	87	\$32,625		\$32,625.00		\$32,625.00	\$32,625.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Hamlet-Raleigh-SMF 28 Armoured Cable		\$0.86	629043	\$540,977		\$540,977.00		\$540,977.00	\$540,977.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Hamlet-Raleigh-Splice Cases		\$375.00	34	\$12,750		\$12,750.00		\$12,750.00	\$12,750.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-SMF 28 Armoured Cable		\$375.00	62	\$23,250		\$23,250.00		\$23,250.00	\$23,250.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-Splice Cases		\$375.00	8	\$3,000		\$3,000.00		\$3,000.00	\$3,000.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Primary-NE-SMF 28 Armoured Cable		\$0.86	1589328	\$1,366,822		\$1,366,822.00		\$1,366,822.00	\$1,366,822.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Primary-NE-Splice Cases		\$375.00	106	\$39,750		\$39,750.00		\$39,750.00	\$39,750.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Secondary-Coastal Route-SMF 28 Armoured Cable		\$0.86	1146605	\$986,080		\$986,080.00		\$986,080.00	\$986,080.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Secondary-Coastal Route-SMF 28 Armoured Cable		\$375.00	92	\$34,500		\$34,500.00		\$34,500.00	\$34,500.00	9. Construction	Components to build buried fiber optic syst
Cables	Williamston-Beaufort-SMF 28 Armoured Cable		\$0.86	120859	\$103,939		\$103,939.00		\$103,939.00	\$103,939.00	9. Construction	Components to build buried fiber optic syst
Cables	Williamston-Beaufort-NE-Splice Cases		\$375.00	8	\$3,000		\$3,000.00		\$3,000.00	\$3,000.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-SMF 28 Armoured Cable		\$0.70	230784	\$161,549		\$161,549.00		\$161,549.00	\$161,549.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-Splice Cases		\$375.00	84	\$31,500		\$31,500.00		\$31,500.00	\$31,500.00	9. Construction	Components to build buried fiber optic syst
Cables	Fiber builds		\$91,007.93	103.48	\$9,417,501		\$9,417,501.00		\$9,417,501.00	\$9,417,501.00	9. Construction	transport medium to serve remote western
Cables	Backbone-SMF 28 Armoured Cable		\$0.86	1297032	\$1,115,448		\$1,115,448.00		\$1,115,448.00	\$1,115,448.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Splice Cases		\$375.00	80	\$30,000		\$30,000.00		\$30,000.00	\$30,000.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-SMF 28 Armoured Cable		\$0.70	145607	\$101,925		\$101,925.00		\$101,925.00	\$101,925.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-Splice Cases		\$375.00	69	\$25,875		\$25,875.00		\$25,875.00	\$25,875.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-SMF 28 Armoured Cable		\$0.70	256964	\$181,289		\$181,289.00		\$181,289.00	\$181,289.00	9. Construction	Components to build buried fiber optic syst
Cables	CAI-Splice Cases		\$375.00	94	\$35,250		\$35,250.00		\$35,250.00	\$35,250.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Graham-SMF 28 Armoured Cable		\$0.86	109349	\$94,040		\$94,040.00		\$94,040.00	\$94,040.00	9. Construction	Components to build buried fiber optic syst
Cables	Backbone-Graham-Splice Cases		\$375.00	8	\$3,000		\$3,000.00		\$3,000.00	\$3,000.00	9. Construction	Components to build buried fiber optic syst
Conduits	Single Microduct Conduit		1,298	1238484	\$1,607,552		\$1,607,552.00		\$1,607,552.00	\$1,607,552.00	9. Construction	Components to build buried fiber optic syst
Conduits	Single Microduct Conduit		1,298	577104	\$749,081		\$749,081.00		\$749,081.00	\$749,081.00	9. Construction	Components to build buried fiber optic syst
Conduits	CAI-Quantity (2) 1/4 Conduits		0.66	218592	\$144,271		\$144,271.00		\$144,271.00	\$144,271.00	9. Construction	Components to build buried fiber optic syst
Conduits	Single Microduct Conduit		1,298	1320819	\$1,714,423		\$1,714,423.00		\$1,714,423.00	\$1,714,423.00	9. Construction	Components to build buried fiber optic syst
Conduits	Single Microduct Conduit		1,298	622667	\$808,222		\$808,222.00		\$808,222.00	\$808,222.00	9. Construction	Components to build buried fiber optic syst
Conduits	CAI-Quantity (1) 1/4 Conduits		0.66	211728	\$139,740		\$139,740.00		\$139,740.00	\$139,740.00	9. Construction	Components to build buried fiber optic syst
Conduits	Conduit Purchase from Patterson and Wilder		1500000	1	\$1,500,000		\$1,500,000.00		\$1,500,000.00	\$1,500,000.00	9. Construction	Components to build buried fiber optic syst
Conduits	Conduit Donation from Patterson and Wilder		4746000	1	\$4,746,000		\$4,746,000.00		\$4,746,000.00	\$4,746,000.00	9. Construction	Components to build buried fiber optic syst
Conduits	Single Microduct Conduit	In-kind Match	1,298	100320	\$130,215		\$130,215.00		\$130,215.00	\$130,215.00	9. Construction	Components to build buried fiber optic syst
Conduits	Single Microduct Conduit		1,298	1189338	\$1,544,540		\$1,544,540.00		\$1,544,540.00	\$1,544,540.00	9. Construction	Components to build buried fiber optic syst
Conduits	CAI-Quantity (2) 1/4 Conduits		0.66	133584	\$88,165		\$88,165.00		\$88,165.00	\$88,165.00	9. Construction	Components to build buried fiber optic syst
Conduits	CAI-Quantity (2) 1/4 Conduits		0.66	237600	\$156,816		\$156,816.00		\$156,816.00	\$156,816.00	9. Construction	Components to build buried fiber optic syst
Ducts	Backbone-Handholds		750	619	\$464,250		\$464,250.00		\$464,250.00	\$464,250.00	9. Construction	Components to build buried fiber optic syst
Ducts	Backbone-Hamlet-Raleigh-Handholds		750	289	\$216,750		\$216,750.00		\$216,750.00	\$216,750.00	9. Construction	Components to build buried fiber optic syst

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
Ducts	CAI-Handholds		750	115	\$86,250			\$86,250		\$86,250	9. Construction	Components to build buried fiber optic system	
Ducts	Backbone-Handholds		750	595	\$446,250			\$446,250		\$446,250	9. Construction	Components to build buried fiber optic system	
Ducts	CAI-Handholds		750	79	\$59,250			\$59,250		\$59,250	9. Construction	Components to build buried fiber optic system	
Ducts	Backbone-Primary-NE-Handholds		750	660	\$495,000			\$495,000		\$495,000	9. Construction	Components to build buried fiber optic system	
Ducts	CAI-Handholds		750	110	\$82,500			\$82,500		\$82,500	9. Construction	Components to build buried fiber optic system	
Ducts	Backbone-Secondary-Coast Route-Bridge Attachment Duct		40.64	55909	\$2,272,142			\$2,272,142		\$2,272,142	9. Construction	Components to build buried fiber optic system	
Ducts	CAI-Handholds		750	138	\$103,500			\$103,500		\$103,500	9. Construction	Components to build buried fiber optic system	
Ducts	Backbone-Graham Handhold		10000	50	\$37,500			\$37,500		\$37,500	9. Construction	Components to build buried fiber optic system	
Poles	RR Crossing Application		35213	1	\$10,000			\$10,000		\$10,000	9. Construction	for permission to cross railroad tracks	
Poles	Pole Attachments - Min Elec		23	1531	\$35,213			\$35,213		\$35,213	9. Construction	for permission to attach fiber to existing pole	
Poles	Pole Attachments - Progress		18	660	\$11,880			\$11,880		\$11,880	9. Construction	for permission to attach fiber to existing pole	
Towers					\$0			\$0		\$0			
Repeaters					\$0			\$0		\$0			
Other	IRU acquisition from FUL networks, metro fiber in downtown Charlotte, NC		749550	1	\$749,550			\$749,550		\$749,550	9. Construction	IRU acquisition to avoid building of existing	
Other	IRU acquisition from City of Monroe to serve Rowan-Cabarrus CC and NC		600000	1	\$600,000			\$600,000		\$600,000	9. Construction	IRU acquisition to avoid building of existing	
Other	Backbone-20 year IRU with 20 year single electric for 30 miles or fiber from		3672000	1	\$3,672,000			\$3,672,000		\$3,672,000	9. Construction	IRU acquisition to avoid building of existing	
Other	IRU acquisition from FUL networks, metro fiber in downtown Charlotte, NC		6	312240	\$1,873,440			\$1,873,440		\$1,873,440	9. Construction	for permission to cross private land	
Other	Local Pole Attach Applications		10	100	\$1,000			\$1,000		\$1,000	9. Construction	for permission to attach fiber to existing pole	
Other	Rideouts		\$0.50	14410	\$7,205			\$7,205		\$7,205	6. Inspection fees	onsight management of the build process	
Other	Blue Ridge Electric IRU for MCNC of 16.5 miles of 16 fibers from Boone to Banner Elk		712,800	1	\$712,800			\$712,800		\$712,800	9. Construction	IRU acquisition to avoid building of existing	
Other	Blue Ridge Electric IRU for ERC of 16.5 miles of 8 fibers from Boone to Banner Elk to		356,400	1	\$356,400			\$356,400		\$356,400	9. Construction	IRU acquisition to avoid building of existing	
Other	Ashville to Spruce Pine fiber donated by ERC	In-kind Match	578,680	1	\$578,680			\$578,680		\$578,680	9. Construction	In-kind fiber donated by ERC	
Other	25 Year IRU With Balsam for 73.9 Miles of Fiber to Robbinsville from Webster		278121	1	\$278,121			\$278,121		\$278,121	9. Construction	IRU acquisition to avoid building of existing	
COMMON													
BUILDINGS													
New Construction													
Pre-Fab Huts	Backbone-Hut, South Piedmont CC, Polkton, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, UNC-Pembroke, Lumberton, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Southeast Community College, Whiteville, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, UNC-Wilmington, Wilmington, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Fayetteville State University, Fayetteville, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Richmond Community College, Hamlet, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Central Carolina Community College, Sanford, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Wilkes CC Alleghany Center, Sparta, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Surry CC, Dobson, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Rockingham CC, Reidsville, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Piedmont CC, Appalachian State University		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Piedmont CC, Rocky Mount, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, TBD, Henderson		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Elizabeth City State University, Elizabeth City, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Roanoke-Chowan CC, Ahoskie, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Halifax CC, Weidon, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Henderson, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Franklin County		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Roanoke Island, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Columbia, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Backbone-Hut, Kitty Hawk, NC		85000	1	\$85,000			\$85,000		\$85,000	2. Land, structures	Controlled Environment for placement at an	
Pre-Fab Huts	Environ. Control, Optic End.		100000	2	\$200,000			\$200,000		\$200,000	2. Land, structures	huts for required signal regeneration	
Improvements & Enhancements					\$0			\$0		\$0			
Other	ECOE (Hut) land acquisition		\$100,000.00	2	\$200,000			\$200,000		\$200,000	2. Land, structures	land that ECOE (hut) will reside on	
Other	DC Distribution		4000	8	\$32,000			\$32,000		\$32,000	2. Land, structures	DC Distribution System to Power POP Elert	
Other	Land Acquisition, Polkton, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	
Other	Land Acquisition, Lumberton, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	
Other	Land Acquisition, Whiteville, NC	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	
Other	Land Acquisition, Wilmington, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	
Other	Land Acquisition, Fayetteville, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	
Other	Land Acquisition, Hamlet, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	
Other	Land Acquisition, Sanford, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	DC Distribution System to Power POP Elert	
Other	DC Distribution		40000	7	\$28,000			\$28,000		\$28,000	2. Land, structures	Land for placement of prefab hut	
Other	Land, Sparta, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	
Other	Land, Dobson, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000		\$40,000	2. Land, structures	Land for placement of prefab hut	

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
Other	Land, Reidsville, NC, 1 Acre	In-kind Match	40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Boone, NC 1 Acre	In-kind Match	50000	1	\$50,000			\$50,000	\$50,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Roxboro, NC 1 Acre	In-kind Match	50000	1	\$50,000			\$50,000	\$50,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Henderson, NC 1 Acre	In-kind Match	50000	1	\$50,000			\$50,000	\$50,000	2. Land, structures	Land for placement of prefab hut
Other	DC Distribution		4000	9	\$36,000			\$36,000	\$36,000	2. Land, structures	DC Distribution System to Power POP Eler
Other	Land, Golden Leaf Foundation, Rocky Mount, NC	In-kind Match	40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Martin Community College, Williamston, NC	In-kind Match	40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Elizabeth City State University, Elizabeth City, NC	In-kind Match	40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Roanoke-Chowan CC, Ahoskie, NC	In-kind Match	40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Halifax Community College, Wealdon, NC	In-kind Match	40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Henderson, NC		40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Franklin, NC		40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Kitty Hawk, NC		40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Roanoke Island, NC		40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
Other	Land, Columbia, NC		40000	1	\$40,000			\$40,000	\$40,000	2. Land, structures	Land for placement of prefab hut
CUSTOMER PREMISE EQUIPMENT											
Modems			\$103,900		\$103,900	\$0		\$103,900	\$103,900		
Set Top Boxes			\$0		\$0			\$0	\$0		
Inside Wiring			\$0		\$0			\$0	\$0		
Other	Managed Media Converter		350	8	\$2,800			2800	\$2,800	10. Equipment	Managed SFP media converters
Other	Cisco DWDM SFP		3800	8	\$30,400			30400	\$30,400	10. Equipment	DWDM SFPs for use in SFP media convert
Other	CAI UPS		700	10	\$7,000			\$7,000	\$7,000	10. Equipment	UPS to provide conditioned power to CAI st
Other	CAI UPS		700	19	\$13,300			\$13,300	\$13,300	10. Equipment	UPS to provide conditioned power to CAI st
Other	CAI UPS		700	20	\$14,000			\$14,000	\$14,000	10. Equipment	UPS to provide conditioned power to CAI st
Other	CAI UPS		700	52	\$36,400			\$36,400	\$36,400	10. Equipment	UPS to provide conditioned power to CAI st
BILLING, SUPPORT AND OPERATIONS SUPPORT SYSTEMS											
Billing Support			\$200,000		\$200,000	\$0		\$200,000	\$200,000		
Customer care	Mapping Software and other Misc. Software for Support		200000	1	\$200,000			\$200,000	\$200,000	11. Misc.	Need professional mapping software for ad
Other Support			\$0		\$0			\$0	\$0		
COMMON OPERATING EQUIPMENT											
Vehicles	Staff Truck for Deployment		\$25,000.00	1	\$25,000			\$25,000	\$25,000	10. Equipment	Required vehicle for support staff in field du
Vehicles	Staff Truck for Deployment		\$25,000.00	1	\$25,000			\$25,000	\$25,000	10. Equipment	Required vehicle for support staff in field du
Other			\$0		\$0			\$0	\$0		
Other			\$0		\$0			\$0	\$0		
PROFESSIONAL SERVICES											
Engineering	Backbone-Route Engineering		\$672,991.00	1	\$672,991	\$0		\$672,991	\$672,991	4. Architectural and engr.	Professional Engineering for backbone fibe
Engineering	Backbone-Hamlet-Raleigh Route Engineering		\$317,407.00	1	\$317,407			\$317,407	\$317,407	4. Architectural and engr.	Professional Engineering for backbone fibe
Engineering	CAI-Route Engineering and Drawings		\$59,566.00	1	\$59,566			\$59,566	\$59,566	4. Architectural and engr.	Professional Engineering for CAI lateral fibe
Engineering	Backbone-Route Engineering		\$654,466.00	1	\$654,466			\$654,466	\$654,466	4. Architectural and engr.	Professional Engineering for backbone fibe
Engineering	CAI-Route Engineering and Drawings		\$36,402.00	1	\$36,402			\$36,402	\$36,402	4. Architectural and engr.	Professional Engineering for CAI lateral fibe
Engineering	Backbone-Primary-NE-Route Engineering		\$792,331.00	1	\$792,331			\$792,331	\$792,331	4. Architectural and engr.	Professional Engineering for backbone fibe
Engineering	Beaufort County-Route Engineering		\$60,984.00	1	\$60,984			\$60,984	\$60,984	4. Architectural and engr.	Professional Engineering for CAI lateral fibe
Engineering	Backbone-Coastal Route-Route Engineering		\$571,624.94	1	\$571,624			\$571,624	\$571,624	4. Architectural and engr.	Professional Engineering for backbone fibe
Engineering	CAI-Route Engineering		\$54,674.40	1	\$54,674			\$54,674	\$54,674	4. Architectural and engr.	Professional Engineering for CAI lateral fibe
Engineering	CAI-Route Engineering and Drawings		\$64,746.00	1	\$64,746			\$64,746	\$64,746	4. Architectural and engr.	Professional Engineering for CAI lateral fibe
Project	Graham-Engineering		\$45,000.00	1	\$45,000			\$45,000	\$45,000	4. Architectural and engr.	Professional Engineering for backbone fibe
Project	Backbone-Project Management and Quality Control		668047	1	\$668,047			\$668,047	\$668,047	4. Architectural and engr.	Professional Project Management and Qual
Project	Backbone-Hamlet-Raleigh Project Management and Quality Control		311636	1	\$311,636			\$311,636	\$311,636	4. Architectural and engr.	Professional Project Management and Qual
Project	CAI-Project Management and Quality Control		112555	1	\$111,255			\$111,255	\$111,255	4. Architectural and engr.	Professional Project Management and Qual
Project	Backbone-Project Management and Quality Control		642567	1	\$642,567			\$642,567	\$642,567	4. Architectural and engr.	Professional Project Management and Qual
Project	CAI-Route Project Management and Quality Control		66629	1	\$66,629			\$66,629	\$66,629	4. Architectural and engr.	Professional Project Management and Qual
Project	Backbone-Primary-NE-Project Management and Quality Control		712428	1	\$712,428			\$712,428	\$712,428	4. Architectural and engr.	Professional Project Management and Qual
Project	Backbone-Coastal Route-Project Management and Quality Control		340326	1	\$340,326			\$340,326	\$340,326	4. Architectural and engr.	Professional Project Management and Qual
Project	Beaufort County-Project Management and Quality Control		59875	1	\$59,875			\$59,875	\$59,875	4. Architectural and engr.	Professional Project Management and Qual
Project	CAI-Project Management and Quality Control		57696	1	\$57,696			\$57,696	\$57,696	4. Architectural and engr.	Professional Project Management and Qual
Project	Direct Engineering Oversight		56000	6	\$240,000			\$240,000	\$240,000	4. Architectural and engr.	required fiber build and network oversight
Project	Direct Engineering Oversight		56000	3	\$168,000			\$168,000	\$168,000	4. Architectural and engr.	required fiber build and network oversight
Project	Direct Engineering Oversight		22500	3	\$67,500			\$67,500	\$67,500	4. Architectural and engr.	required fiber build and network oversight
Project	Environmental Assessment		50000	1	\$50,000			\$50,000	\$50,000	4. Architectural and engr.	required fiber build and network oversight

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 757,080.00	\$	\$ 757,080.00
2. Land, structures, rights-of-way, appraisals, etc.	\$ 3,401,000.00	\$	\$ 3,401,000.00
3. Relocation expenses and payments	\$ 0.00	\$	\$ 0.00
4. Architectural and engineering fees	\$ 7,425,748.00	\$	\$ 7,425,748.00
5. Other architectural and engineering fees	\$ 0.00	\$	\$ 0.00
6. Project inspection fees	\$ 7,205.00	\$	\$ 7,205.00
7. Site work	\$ 0.00	\$	\$ 0.00
8. Demolition and removal	\$ 0.00	\$	\$ 0.00
9. Construction	\$ 87,329,001.00	\$	\$ 87,329,001.00
10. Equipment	\$ 6,971,935.00	\$	\$ 6,971,935.00
11. Miscellaneous	\$ 200,000.00	\$	\$ 200,000.00
12. SUBTOTAL (sum of lines 1- 11)	\$ 106,091,969.00	\$ 0.00	\$ 106,091,969.00
13. Contingencies	\$	\$	\$ 0.00
14. SUBTOTAL	\$ 106,091,969.00	\$ 0.00	\$ 106,091,969.00
15. Project (program) income	\$	\$	\$ 0.00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 106,091,969.00	\$ 0.00	\$ 106,091,969.00

FEDERAL FUNDING

17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X <u>71.467844%</u> <i>plus</i>	\$ 75,757,289.00
---	---	------------------

Previous Edition Usable

Authorized for Local Reproduction

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-1 33, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

*SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL <i>Patricia J. Moody</i>	*TITLE <i>CFO</i>
*APPLICANT ORGANIZATION <i>MCNC</i>	*DATE SUBMITTED <i>6/17/10</i>