Grant Request Number	GRN-000320
Funding Program Name	Middle Mile Broadband Infrastructure Grant Program
Funding Request Name	Mid-Atlantic Broadband Communities Corpo - Middle Mile - GRN-000320
Applying Organization	Mid-Atlantic Broadband Communities Corporation
Applicant Name	Daniel Lloyd

Primary Applicant Type

Identify the primary applicant type:

Single Entity

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Primary Entity Type

Type of entity: Primary entity type, (A) a State, political subdivision of a State, Tribal government, technology company, electric utility, utility cooperative, public utility district, telecommunications company, telecommunications cooperative, nonprofit foundation, nonprofit corporation, nonprofit institution, nonprofit association, regional planning council, Native entity, or economic development authority; or (B) a partnership of two (2) or more entities described in (A).

What is the primary applicant's entity type?

Nonprofit Corporation

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Is parent/owner of applicant a foreign entity?

No

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

Key Personnel - Chase Weddle; Mid-Atlantic Broadband Communities Corporation; OSP Engineering & Planning Manager; Chase.weddle@mbc-va.com
KeyPersonnel_Resume_Chase_Weddle

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

Key Personnel - Chris Coleman; Mid-Atlantic Broadband Communities Corporation; Senior OSP Engineer; Chris.coleman@mbc-va.com
KeyPersonnel_Resume_Chris_Coleman

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

Key Personnel - Jacob Saunders; Mid-Atlantic Broadband Communities Corporation; OSP Project Coordinator; Jacob.saunders@mbc-va.com
KeyPersonnel_Resume_Jacob_Saunders

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

Key Personnel - Maddie Isaacs; Mid-Atlantic Broadband Communities Corporation; Network Planner; Madeline.Isaacs@mbc-va.com
KeyPersonnel_Resume_Maddie_Isaacs

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

Key Personnel - Mark Petty; Mid-Atlantic Broadband Communities Corporation; VP Network Operations; Mark.petty@mbc-va.com

KeyPersonnel_Resume_Mark_Petty

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

Key Personnel - Phillip Lloyd; Mid-Atlantic Broadband Communities Corporation; Sr Director Finance & Accounting; Daniel.lloyd@mbc-va.com
KeyPersonnel_Resume_Phillip_Lloyd

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Managerial Capability

Applicants shall submit to the Assistant Secretary one-page resumes for (a) all key management personnel and (b) all key personnel of subcontractors or other entities that will play substantial roles in building, managing, or operating the middle mile network built using Middle Mile Grant (MMG) Program funding.

Key Personnel - Tad Deriso; Mid-Atlantic Broadband Communities Corporation; President & CEO; tad.deriso@mbc-va.com
KeyPersonnel_Resume_Tad_Deriso

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Organizational Charts

Each applicant shall submit any necessary organizational chart(s) detailing all of its parent companies, subsidiaries, and affiliates.
This upload section should also be used for any letters of support from the organizations that will be involved in the project as a community stakeholder.

2-09-27-2022 11-53-Mid-Atlantic Broadband Communities Corpo-GRN-000320.5 MBC Organization Chart 10.4.2022.pdf

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Organizational Details

Each applicant must also provide a narrative describing the applicant's readiness to manage a middle mile broadband network. This narrative should describe the experience and qualifications of key management set to undertake this project, the applicant's experience undertaking projects of similar size and scope, recent and upcoming organizational changes including mergers and acquisitions, relevant organizational policies, and ownership information consistent with 47 CFR § 1.2112.

This narrative shall denote who will own the assets at the end of award period. This response is limited to 6000 characters as an open field narrative.

MBC is highly experienced at managing Federal and State grants for the implementation of open-access fiber optic networks. Since our founding in 2004, MBC has successfully applied, been awarded, and successfully implemented over $100 million in capital grants ($6 million USDOC-EDA; $34M NTIA/BTOP; $60M Commonwealth of Virginia – Tobacco Region Revitalization Commission) to implement the advanced open-access middle mile network in southern Virginia.

MBC has maintained a sustainable business operation since becoming fully operational in 2006, and maintains a core employee base of project managers, network operations experts, a finance and accounting team, a small sales team, and outsources the non-core activities of our network including utility locating, fiber construction, and some equipment provisioning, monitoring and equipment installations.

MBC is a financially strong and stable organization, as indicated by our positive financial audits, our customer base, our business model of providing wholesale open-access fiber optic transport and dark fiber services, and our team of dedicated professionals who understand the grant process and how to manage large, complex capital builds within the compliance parameters of both Federal and State grants.

Our project team is experienced with NTIA grant-funded projects as well as what it takes to build hundreds of miles of fiber in our southern Virginia region. Their resumes are attached to this application for your review. We do not include references or resumes of our other key contributors (contractors, engineering design services, inspectors, etc.) since those services will be competitively bid if MBC is awarded this project.

Over 50 telecommunications carriers utilize our network today, including electric cooperatives building fiber to the home and utilize our connectivity to key IP Transit providers in Richmond and Ashburn, Virginia to small ISPs that need to connect wireless equipment on water towers to serve small communities with broadband, to large trillion dollar hyperscale technology companies who utilize MBC's dark fiber and expertise of building diverse and robust fiber routes in Virginia to serve their needs…it all points to a highly effective organization who has been in this business and continues to grow both in network reach and financial capability.

All fiber assets that will be built as part of this NTIA-funded project will be owned and operated exclusively by MBC. MBC acknowledges that:

1. MBC is a 501(c)(4) Corporation and owns it own assets. No third party owns or controls MBC
2. No party holds any stock in MBC
3. No limited partnership exists
4. No general partnership exists

5. No limited liability company controls MBC
6. No parties hold indirect ownership in MBC
7. No FCC entity or applicant for FCC licenses own or control MBC

As a 501(c)(4) non-profit corporation headquartered in the Commonwealth of Virginia, MBC prides itself on responsible fiduciary management and has a long track record of outstanding achievements and successful implementation of capital grants.

MBC brings a unique perspective that will benefit the Region in the implementation of this open-access middle mile fiber infrastructure project. A few key benefits our project will bring include;

1. This project will improve the attractiveness and marketability of existing industrial and business sites with the ultimate goal of creating significant high-wage job creation.
2. Since our inception in 2004, MBC has utilized comprehensive metrics to track outputs and outcomes, which focus on efficient operations and minimize distractions and costs.
3. A positive Return on Investment (ROI) is projected for this project within the first 5 years. Given the planned job growth and substantial capital investment of existing data center operations, this will provide immediate impacts and will help localities attract new jobs and capital investments.
4. This project will have a significant impact on the majority of the population within the project area and beyond. Building new diverse middle-mile fiber infrastructure and connecting to MBC's existing 2,000 mile network will provide more opportunities for ISP's to expand their last-mile broadband services, expedite DHCD VATI deployments and help attract high paying jobs to those communities.
5. This middle mile fiber infrastructure project clearly aligns with regional priorities in the Growth & Development (G&D) Plans. MBC works closely with our local and regional economic development partners to promote the open-access fiber infrastructure as an asset to attract private capital investments and high-paying jobs from existing and prospective companies
6. Numerous public and private partners will be involved, which will lead to extensive collaboration opportunities and efficiencies with State, Regional and Local economic development recruiting.
7. MBC has a great deal of experience in managing and implementing new fiber infrastructure projects. The 24-month timeline is realistic, and project milestones with drawdown schedules are accurate.
8. MBC's diverse and growing revenue base will ensure long-term financial sustainability well beyond the capital funding that this project will utilize. MBC has a strong underlying wholesale fiber operations business supported by a diverse group of carrier customers.
9. MBC has been successfully building and operating open-access middle-mile fiber networks in the Commonwealth of Virginia since 2004. There is a strong pipeline of demand for these new middle mile fiber routes for users of this new middle mile infrastructure from both existing data center operators and telecom carriers and ISPs throughout the region.

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Form CD-511 (Certification Regarding Lobbying)

The applicant must upload a completed form that certifies that Federal funds have not and will not be used for lobbying in connection with this request for Federal financial assistance. A fillable Form CD-511 can be found in the MMG ZIP folder.

CD511-09-27-2022 02-09-Mid-Atlantic Broadband Communities Corpo-GRN-000320.pdf, CD-511 signed 10-10-19-2022 04-27-Mid-Atlantic Broadband Communities Corpo-GRN-000320.18.22.pdf

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SAM.gov Registration

Applicants are asked to upload a screenshot of their SAM.gov registration.

3-09-27-2022 12-02-Mid-Atlantic Broadband Communities Corpo-GRN-000320.3 SAM.gov Registration.pdf

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Executive Summary

Please describe how the applicant's proposal will advance the objectives of the MMG Program, as well as the specific objectives of outlined in the Notice of Funding Opportunity (NOFO);

An overview of the proposed route or service area(s), including information regarding rurality and socio-economic indicators in the area to be served by the proposed project.
This response is limited to 12000 characters as an open field narrative.

The purpose of this project will be to build eight (8) open-access middle mile fiber segments that will provide critical broadband connectivity and diversity for economic development purposes in thirteen (13) localities in the Commonwealth of Virginia including the Counties of Mecklenburg, Lunenburg, Prince Edward, Nottoway, Dinwiddie, Prince George, Sussex, Greensville, Cumberland, Goochland, Louisa, Powhatan, and the City of Petersburg.
According to the U.S. Census Data, eight of the localities have poverty rates higher than the national and state averages. Locality populations range from 9,675 to 43,010. The median household income ranges from $43,029 to $97,146, with an average median household income of $60,308 for the project region which is under both the state and national averages. Per capita income averages $29,488 for the total project region which is 71% of the state average and about 83% of the national average.
The proposed project includes eight (8) segments that have been identified as strategic opportunities to enhance connectivity for last-mile internet service providers among existing assets in the region, including workforce training centers, higher education institutions, business parks, and other economic development sites of interest.
Segment 1: South Hill Node to Kenbridge Node:

- Starting at the MBC Node Building at Hillcrest Industrial Park in the Town of South Hill in

Mecklenburg County, VA. This new fiber segment will go north on Rte 138 to the intersection of Rte 137. The route will continue northwest on Rte 137 towards Kenbridge. Rte 137 turns into 5th street, where the fiber will follow existing aerial pole lines on Station St and Main St, until the fiber terminates at the existing MBC node at the Kenbridge Commerce Center in Lunenburg County, VA.

- This route will improve the fiber route diversity and capacity that supports the marketability and feasibility of the Kenbridge Commerce Center site in Lunenburg County. [redacted]

Segment 2: Blackstone Node to 1-85 McKenney:

- Starting at the existing MBC Node at Fort Pickett in Blackstone, Virginia the fiber will route north on Military Rd and then turn east on Darvillis Rd (Rte 40). The fiber route continues east on Rte 40 to the intersection of Interstate 85, where it will connect to MBC's existing 288-strand fiber cable at an existing MBC splice point on the western side of the Interstate.
- This segment will support additional broadband capabilities at Fort Pickett, A Virginia Army National Guard installation located near the Town of Blackstone, for rapidly mobilized national security operations in the future and the current and expanding Federal and private contractor workforce personnel. [redacted]

This route also provides unique diversity for Fort Pickett and provides alternative backbone options in this area.

Segment 3: Dinwiddie to Prince George:

- This route will begin at the intersection of Rte 1 and Hofheimer Way near the Ritchie Tract site property. The route splices into MBC's existing 192 fiber cable and extends east to Rte 603. As the route is built, there will be handholes placed at the entrance to the various industrial park and business sites along the route, to ensure fiber is available for current and future business and industrial customers. As the fiber extends on Rte 603 there will be a fiber lateral that builds north on 7th Ave to connect the Central State Hospital site. The fiber continues east on Boydton Plank Rd and routes southeast on Fort Lee Rd, Squirrel Level Rd, and continues south on Halifax Rd. There will be a fiber lateral extending from Halifax Rd and Vaughan Rd to the large potential industrial site called Squirrel Level Road Site. From Halifax Rd, the fiber will connect to the Petersburg Interstate Industrial Park site providing access to the existing and future businesses. The fiber route continues east on Rtes 604 and 677 to Richard Bland College Site, then routes north on Rte 608, Rte 629, Flank Rd, Crater Rd, and Wagner Rd to connect several industrial sites. An additional fiber lateral will route on Wagner Rd, crossing I- 95, and will connect the critical pharmaceutical manufacturing and research cluster in operation at the AMPAC Pharma site on North Normandy Dr. Once on Wagner Rd, the fiber routes within the medical park boulevard area to ensure connectivity to the Southside Hospital and additional industrial sites on Rte 301 and Rte 629. The fiber then routes east on Rte 629 and splices into MBC Existing fiber on Rte 460 and Rte 629 at the New Bohemia Business Park.
- This section directly supports economic development, workforce development, and all aspects

of quality of life in Dinwiddie County and Prince George County by enabling industrial, business, education, and biotech/pharmaceutical clusters to fiber connectivity. This project will take on the challenge of constructing this fiber segment with over six (6) railroad crossings as part of this route.

[redacted]

Segment 4: MAMaC Lateral – Greensville County

- Route begins at the splice point from MBC's existing 96 fiber backbone on Rte 301 and Rte 614. The fiber will route north and cross over I-95 to extend to the western side of the Mid-Atlantic Advanced Manufacturing Center (MAMaC) Megasite Park in Greensville County. The fiber will be placed in a handhole on the northwest side of the park, allowing for future growth and development of advanced manufacturing companies and their large capital investments. It's important that the fiber extends to the northern end of the MAMaC Site, so that future site development, access roads, and other utilities can be placed in the best position for the prospective industry.
- This segment directly supports economic development in Greensville County and Mecklenburg County by providing diverse fiber to enhance the marketability of the 1,600 acres, CSX Certified, MAMaC Megasite in Greensville County. MAMaC is a partnership of the Greensville County and Mecklenburg County regions. With I-95 frontage, CSX main line rail access and a direct route to Virginia ports, the site boasts easy access to both national and international markets via road, rail, and sea. MAMaC is the only megasite certified by McCallum Sweeney Consulting in Virginia, North Carolina, or Maryland; no other industrial site can combine this certification with Virginia's superlative, award-winning business climate. This proposed fiber route will contribute to the improved marketability and competitiveness of MAMaC. [redacted]

Segment 5: Farmville to Heartland Innovation Technology Park:

- Starting at the existing MBC node at the Prince Edward County Industrial Park on Dominion Drive, the fiber route will continue north on Rte 15 and east on Rte 460 where it will intersect with Business 460. The route will continue northwest on Business 460 to Rte 638, Persimmon Tree Fork Rd. The route will extend east to the northern end of the Heartland Innovation Technology (HIT) Park and will be placed in a handhole for access to data center development projects.
- This segment will directly support economic development in Prince Edward County and Cumberland County by building new diverse fiber to the recently established 280-acre HIT Park owned by the Prince Edward County IDA. Job creation and private investment will benefit the Prince Edward County region, which includes Longwood University and Hampden-Sydney College, and is served by Southside Virginia Community College, which has demonstrated excellence in information technology workforce training. [redacted]

Segment 6: Sussex Mega Site Laterals:

- The route begins at an existing MBC splice point on Rte 460 near Rte 602. The fiber lateral will extend south, crossing a critical railroad rights of way, and will be placed in a handhole at Rte 602 and Rte 626 to access the Sussex Mega Site. The route will also extend from the existing MBC splice point on Rte 460 and Rte 602, and extend north on Rte 602 to the Cabin Point Road site for economic

development opportunities.

- The 595-acre Sussex Megasite is conveniently located in proximity to I-95, I-295, I-85, and Rte 460. It is also well-positioned to access rail, seaport, and airport infrastructure, guaranteeing rapid and efficient shipments of merchandise. The addition of middle mile fiber diversity will enhance the site's marketability for advanced manufacturing. [redacted]

Segment 7: Farmville HIT Data Center Park to Cumberland

- The route begins at the entrance to the HIT Data Center Park in Farmville / Prince Edward County and extends north through downtown Farmville, across the Appomattox river bridge, and continues north on Rte 45 to Rte 60. Once on Rte 60, the fiber will route east along Rte 60 through Cumberland County and the courthouse complex and extends north to the existing MBC node located at the Southside Electric Cooperative substation on Poorhouse Road.

[redacted]

Segment 8: Cumberland to Shannon Hill Business Park – Louisa County

- The route begins at the existing MBC node in Cumberland county and routes south on Poorhouse Rd and turns east on Rte 60. The fiber route will turn north on Rte 45 and extend to the north end of the county, where it will transition to the bridge crossing over the James River. When the fiber reaches Rte 6, it will continue north on Haydensville Fife Rd where it will intersect with Rte 250. The route will continue west on Rte 250 to Shannon Hill Rd and then turn north, crossing under I-64, and terminating in a handhole near the water tower at the park, and the future MBC node site to be located at the Shannon Hill Business Park.
- This segment will directly support economic development in Prince Edward County and Louisa County by building new diverse fiber to the 700-acre Shannon Hill Regional Business Park. Targeted industries for Shannon Hill Park are Manufacturing, Data Centers, Biotechnology, and Logistics/Distribution which will require diverse fiber. [redacted]

The key impacts of this 130-mile middle mile construction project are:

- Enable open-access middle mile connectivity and enhance DHCD VATI grant funds for local ISPs [redacted] to increase their speed to market and provide Rte diversity for their last-mile broadband service to residential and business customers.
- Provide open access middle mile diverse fiber infrastructure to a total of 32 industrial and business park sites in eleven localities.
- Ensures redundancy in telecommunications and broadband networks to protect commerce and public safety in all eight localities.
- Build telecommunications infrastructure that will support technology-driven businesses that provide high-paying jobs in the existing Industrial and Business parks in the region.

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Level of Need

A description of the level of need in the proposed service area(s), including but not limited to communities considered unserved and/or underserved in the proposed service area(s), discussion of the competitive landscape in the area, variations among service areas if there are any, or the general economic conditions in the proposed funded service area.

This response is limited to 12000 characters as an open field narrative.

The proposed middle-mile fiber investment will serve thirteen localities in Southside and Central Virginia, including the City of Petersburg and the Counties of Mecklenburg, Lunenburg, Prince Edward, Nottoway, Dinwiddie, Prince George, Sussex, Greensville, Cumberland, Goochland, Powhatan, and Louisa. With an exception of the City of Petersburg, Powhatan County, and Prince George County, all of the localities in the project area have a population less than 90 per square mile. The state average for Virginia is 218.6 per square mile. Unfortunately, for more densely populated areas, broadband infrastructure is more readily developed in areas where services can get the most customers per mile. For rural areas like southern Virginia, grant funding to develop infrastructure is essential for connectivity.

In addition to households that can be served through end-mile ISPs once the middle-mile infrastructure is developed, there are fifty-three (53) Community Anchor Institutions within the project area; 26% are located in Prince Edward County, 25% are located in the City of Petersburg, 17% are in Cumberland County, 8% are in Greensville County, 6% are in Dinwiddie County, 6% are located in Lunenburg, 4% are in Nottoway County, 4% are in Goochland County, 2% is in Louisa County, and 2% is in Mecklenburg. Most of these anchor institutions are essential for economic growth and development in high-poverty areas. For example, the City of Petersburg and surrounding localities have struggled for many years with lower average wages and less favorable economic development outcomes. According to American Community Surveys data, the current poverty rate for the City of Petersburg is 22.6%, over two times the national and state averages. The recent announcements of the Pharma cluster and AMPAC Pharmaceuticals establishing a major presence in the area promise opportunity for economic growth for the city and surrounding areas. Bringing new middle mile fiber projects to this part of the region will only benefit the economic development efforts and improve the marketability and impact that these economic development sites can bring to these affected communities.

A breakdown of the level of need for each segment can be found below. Service Data used was acquired by Commonwealth Connection and can be viewed in the project shapefiles attached later in the application:

Segment 1: South Hill to Kenbridge

The South Hill to Kenbridge segment connects two rural counties: Mecklenburg County, with a population per square mile of 48.5, and Lunenburg, with 27.6. Currently, most of the census blocks surrounding the segment are determined to be unserved. [redacted]

[redacted]

The median household ranges from $45,884 to $50,224, with an average poverty rate of 15.95%. This route will improve the fiber route diversity and capacity that supports the marketability and feasibility of the Kenbridge Commerce Center site in Lunenburg County. This segment will also directly support the critical growth of a high-tech data center operation in Mecklenburg County. Anchor institutions in the area are Kenbridge Police Department, Ripberger Public Library, Kenbridge Elementary School, and VCU Community Memorial Hospital.

Segment 2: Blackstone to 1-85 McKenney

The Blackstone to McKenney segment connects two rural counties: Nottoway, with a population per square mile of 49.8, and Dinwiddie, with 55.5. Currently, the majority of the census blocks surrounding the segment are determined to be unserved. [redacted]

The median household ranges from $49,983 to $65,485, with an average poverty rate of 15.15%. This segment will support additional broadband capabilities at Fort Pickett for rapidly mobilized national security operations in the future and the current and expanding Federal and private contractor workforce personnel. Anchor institutions in the area are the Southern Piedmont Agriculture Research and Education Center, Blackstone Army Airfield, Sunnyside Elementary School, McKenney Police Department, and McKenney Branch Library.

Segment 3: Dinwiddie to Prince George

The Dinwiddie to Prince George segment travels through the Counties of Dinwiddie and Prince George and the City of Petersburg. Currently, the majority of the census blocks surrounding the segment are determined to be served. However, there are multiple pockets that are determined to be unserved.

[redacted]

The median household ranges from $43,029 to $75,123, with an average poverty rate of 13.9%. This section directly supports economic development, workforce development, and all aspects of quality of life in Dinwiddie County and Prince George County. This critical route enables industrial, business, education, and biotech/pharmaceutical clusters robust diverse fiber connectivity and will take on the challenge of constructing this fiber segment with over six (6) railroad crossings. Anchor institutions in the area are Central State Hospital, Southside Virginia Training Center, JEB Stuart Elementary School, Westview Early Childhood Education Center, AP Hill Elementary School, AP Hill Branch Library, IB Pittman Vocational Center, Vernon Jones Junior High School, Richard Bland College, Health South Rehab Hospital, RA Lewis Christian School, BREC Academy School, and William A Walton Elementary School.

Segment 4: MAMaC Lateral to Greensville County

The Greensville County population per square mile is 38.6, and almost all of the census blocks surrounding the segment are determined to be unserved. [redacted] There are some long-haul fiber routes along Interstate 95 going north/south, but those networks are not accessible for local access. [redacted]

The median household income is $49,756 with 21.5% of the population in poverty. This segment directly supports economic development in Greensville County and Mecklenburg County by providing diverse fiber to enhance the marketability of the 1,600 acres, CSX Certified, MAMaC Megasite in Greensville County, which offers a unique opportunity for attracting private investment to Virginia. Anchor institutions in the area include Belfield Elementary School, Edward Wyatt Elementary School, Greensville Elementary School, and Workforce Development Center.

Segment 5: Farmville to Heartland Innovation Technology Park

The Prince Edward population per square mile is 63.4 and while most of the census blocks surrounding the segment are determined to be served, there are multiple areas that are determined to be unserved to underserved. [redacted] Fiber and wireless services are prevalent.

The median household income is $44,253 with 23.6% of the population in poverty. This segment will directly support economic development in Prince Edward County and Cumberland County by building new diverse fiber to the recently established Heartland Innovative Technology Park. Diverse fiber is a minimum requirement for data center prospects, making this investment critical to the success of the HIT. Anchor institutions include Prince Edward County Vocational School, Prince Edward County High School, Prince Edward County Elementary School, and Prince Edward County Middle School.

Segment 6: Sussex Mega Site Lateral

The Sussex County population per square mile is 22.1, and while the majority of the census blocks surrounding the segment are determined to be served, the Mega Site is determined to be unserved. [redacted] There are long-haul networks [redacted] along route 460, but those networks do not allow local access points into their fiber routes.

The median household income for Sussex County is $51,701 with 18.9% of the population in poverty. The addition of middle mile fiber diversity will enhance the 595-acre Sussex Megasite's marketability for advanced manufacturing. [redacted]

Segment 7: Farmville HIT Data Center Park to Cumberland

The Farmville to Cumberland segment connects two rural counties: Prince Edward County, with a population per square mile of 62.4, and Cumberland, with 32.5. The census blocks surrounding the segment are a mixture of served, unserved, and underserved. [redacted]

The median household income ranges from $44,253 to $50,565 with an average poverty rate of 18.55%. This segment provides an open-access fiber path into the new data center site, as well as provides access points for last-mile connectivity to residential and business customers along the route.

Anchor institutions include Community Re-Employment Office, Department of Forestry, Department of Emergency Management, Piedmont Health Department, Department of Juvenile Justice, Farmville Police Department, Fuqua School, Longwood University, Farmville-Prince Edward County Library, New Christian Life Academy, Department of Social Services, Southside Virginia Community College, Cumberland County Public Library, Cumberland Middle School, Cumberland Elementary School, Cumberland High School, Cumberland County Sheriffs Office, and Cumberland County Health Department.

Segment 8: Cumberland to Shannon Hill Business Park

The Cumberland to Shannon Hill Business Park segment travels through the Counties of Cumberland, Goochland, and Louisa. The census blocks surrounding the segment are determined to be about half served and half underserved. In the northern end of Cumberland County, [redacted] On Route 250, there are several regional middle mile networks that MBC can access, [redacted] to allow interconnection for longer routes to peering locations in Charlottesville and Richmond.

The median household income ranges from $50,565 (Cumberland) to $97,146 (Goochland) with an average poverty rate of 27.2%. This segment will directly support economic development in Prince Edward County and Louisa County by building new diverse fiber to the 700-acre Shannon Hill Regional Business Park. Targeted industries for Shannon Hill Park are Manufacturing, Data Centers, Biotechnology, and Logistics/Distribution which will require diverse fiber. Anchor institutions in the area include Elk-Hill Harambee School, Byrd ES , and Moss Nuckles ES.

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State Collaboration Acknowledgement

NTIA strongly encourages prospective non-state applicants to coordinate and consult with the State Broadband Office or other coordinating body located in the jurisdiction in which the eligible entity proposes to deploy middle mile infrastructure to ensure that the proposal is consistent with the state's broadband plan and priorities. Please confirm collaboration and consultation.

Do you confirm collaboration and consultation with the appropriate organization?

Yes

———

State and Local Collaboration Narrative

Please provide information on the applicant's coordination with applicable State, Territory, Tribal, and local governments, including their awareness of the proposed project and any potential impact to respective service areas; and

Information regarding the applicant's involvement and coordination with community organizations

or other relevant partners in the proposed service area.

This response is limited to 6000 characters as an open field narrative.

Mid Atlantic Broadband has obtained the direct support of the Virginia Department of Housing and Community Development's Office of Broadband for the MBC Middle Mile Construction project. An attached letter of support from Bryan Horn, Director of DHCD, states, "MBC's proposed project to build eight (8) new open-access middle mile fiber segments that will enable internet service providers to use the fiber network to reach remaining unserved areas is consistent with the Governor Youngkin's goal of ensuring all Virginians have access to affordable, reliable high speed internet, and supports their application to the NTIA's Middle Mile Broadband Infrastructure Grant Program."

The project also encompasses three GO Virginia (GOVA) regions; GOVA Region 3 in Southern Virginia, GOVA Region 4 in Central Virginia, and GOVA Region 9 in Piedmont Virginia. GOVA is a "Growth and Opportunity" bipartisan, state-level economic development initiative that encourages regional collaboration and promotes private sector growth across the Commonwealth. Managed by the Department of Housing and Community Development, identified target industries included Business Services, various Manufacturing, IT/Communications, and Biotechnology, all of which require reliable broadband infrastructure to prosper. The GO Virginia State Board approved the project and awarded $5MM on April 21, 2022. The award is contingent on receiving NTIA Middle Mile Grant funding.

MBC, through Regional GOVA Council management teams, has provided a three-page briefing document, explaining the intent of the Project, key impacts anticipated, and the Scope, Schedule, and Budget of the Middle Mile fiber infrastructure construction project. MBC has held several virtual meetings with council members and regional stakeholders regarding this project. Those meetings have been met with a high degree of interest and enthusiasm for moving forward on this Project application.

In Addition, to support from GOVA Regions 3, 4, and 9, the MBC Middle Mile project has received overwhelming support from the participating localities. Letters of support are attached demonstrating support from participating local governments, each Go Virginia Region and the Go Virginia State Board, the Virginia Growth Alliance, and the Virginia Department of Housing and Community Development's State Broadband Office.

———

Will the project connect middle mile infrastructure to last mile networks that provide or plan to provide broadband service to households in unserved areas?

Yes

———

Is the project connecting non-contiguous trust lands?

No

———

Do you commit to offering wholesale broadband service at reasonable rates on a carrier-neutral basis?

Yes

———

The eligible entity adopts fiscally sustainable middle mile strategies. This strategy should be described in the Budget Narrative.

Do you attest to this?

Yes

———

The eligible entity commits to offering non-discriminatory interconnect to terrestrial and wireless last mile broadband providers and any other party making a bona fide request. This policy will be described in the Interconnect Policy.

Do you attest to this?

Yes

———

The eligible entity identifies specific terrestrial and wireless last mile broadband providers that have(i) expressed written interest in interconnecting with middle mile infrastructure planned to be deployed by the eligible entity; and ii) demonstrated sustainable business plans or adequate funding sources with respect to such interconnection. This may be demonstrated in the Level of Need narrative of the Exec Summary.

Do you attest to this?

Yes

———

The eligible entity has identified supplemental investments or in-kind support (such as waived franchise or permitting fees) that will accelerate the completion of the planned project. Such acceleration may be described in the Project Timeline narrative.

Do you attest to this?

No

———

The eligible entity has demonstrated that the middle mile infrastructure will benefit national security interests of the United States and the Department of Defense. The benefits may be explained in the Benefitting National Security Interests Narrative.

Do you attest to this?

Yes

———

Please describe:

MBC's middle mile extension project will provide additional redundancy and resiliency for fiber optic connectivity for Segment 1 [redacted]. Segment 2 (Fort Pickett located in Blackstone, Virginia), Segment 3 (Fort Lee located between Dinwiddie and Prince George – this diverse southern Rte will provide ring protection on MBC's existing east and west Rtes in and out of Fort Lee).

MBC's open-access network supports carriers that have Master Service Agreements with [redacted] The proposed NTIA middle mile Rtes will improve redundancy and resiliency for those services.

[redacted]

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Project Duration

Number of Years

4

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Project Timeline Narrative

The narrative requires the Applicant to describe a project with critical path, including key milestones for implementation of the project, preparations, and risk factors; and a capital investment schedule evidencing that the applicant will complete build-out and the initiation of service within five years of the date on which the entity receives the grant and will meet interim buildout requirements set forth herein and in any other binding document.
If the project is able to be accelerated with supplemental investments or in-kind support to meet a statutory purpose, this should be explained.

This response is limited to 6000 characters as an open field narrative.

MBC is proposing a realistic timeline for the planning, design, permitting, bidding, construction, inspection, testing, and close-out of this project. Material delays continue to hamper many telecom providers, and MBC is currently experiencing 52-week lead times for large fiber orders.

The project will not be accelerated with supplemental investments or in-kind support to meet a statutory purpose. The schedule will require the full 48 months to complete.

Key milestones for this new Middle Mile build are based on MBC's extensive experience in building and operating open-access fiber networks throughout rural southern Virginia.

Upon grant award, MBC will incorporate the following key milestones into our project plan:

- Complete remaining Route engineering and design: 2 months
- Permit process with VDOT, railroads, utilities: 6 months
- Develop and issue RFP for construction services: 2 months
- Evaluation of contractor bids and compliance with Federal grant requirements: 2 months
- Construction for first 53 miles (40% complete): 12 months (total 24 months after award date)
- Construction of next 50 miles (80% complete): 12 months (total 36 months after award date)
- Construction of remaining 27 miles (100% complete): 6 months (total 42 months after award date)
- Final inspections, testing, project close-out: 6 months (total 48 months after award date)
- MBC will have segments 1-8 completed, tied into the existing MBC network, and operational by 48 months from the initial award date.

MBC has an extensive operational and billing support system already in place as we have been operating open-access networks for 16 years since our initial network builds from 2004 were operational and in service in late 2006.

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Project Timeline File

Applicants are asked to upload a timeline which will denote key milestones for implementation of the project, including but not limited to field survey, network design, equipment/material procurement, environmental assessment, permitting, construction, network testing, network activation and completion.

1-09-27-2022 01-50-Mid-Atlantic Broadband Communities Corpo-GRN-000320.9 MBC Middle Mile Project Timeline.pdf

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Is an extension being requested?

No

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Special Rules for Tribal Governments and Native Entities

The Infrastructure Investment and Jobs Act permits the Assistant Secretary, in consultation with Tribal governments and Native entities, to waive, or specify alternative requirements, in connection with most directives governing the MMG Program if the Assistant Secretary finds that waiver or modification of the requirement is necessary for (a) the effective delivery and administration of middle mile grants to Tribal governments or (b) the construction, improvement, or acquisition of middle mile infrastructure on trust land.

Is a waiver or alternative requirements requested?

No

———

Fair Labor Practices

Applicants must have a demonstrated record of and plans to be in compliance with federal labor and employment laws as described in III.H in the NOFO. This will help ensure that projects are carried out in accordance with the law, assist NTIA in ensuring that a prospective awardee is capable of carrying out activities funded by an award in a competent manner in compliance with all applicable federal, state, and local laws; and promote the effective and efficient completion of high-quality middle mile broadband infrastructure projects by ensuring a reliable supply of skilled workers and minimizing disruptive and costly delays.

This response is limited to 6000 characters as an open field narrative.

MBC has successfully completed Federally funded open-access middle mile fiber builds in the past and will continue to use those practices and experience to ensure the NTIA middle mile program grant requirements around fair labor practices are met. Over the last three years, neither MBC nor its contractors or subcontractors have been in violation of federal labor and employment laws on broadband deployment projects including the Occupational Safety and Health Act, the Fair Labor Standards Act, and all other applicable employment laws.

From 2004-2006, MBC successfully implemented a $6 million US Dept of Commerce, Economic Development Administration grant to build the first 300 miles of open-access fiber network in southern Virginia. MBC was able to comply with Davis Bacon Wage Act, and other federal workforce contracting standards at the time. In 2010, MBC was a successful awardee from the US Dept of Commerce, National Telecommunications and Information Administration Broadband Technology Opportunity Program (NTIA/BTOP) for several projects that totaled $32 million in grants. Those projects were completed on time and under budget and complied with the federal labor and employment laws required for project construction activities.

MBC will comply with all federal labor and employment laws where MBC employees are involved, and

MBC will ask contractors and subcontractors to also comply with those federal labor and employment laws.

To complete this project, MBC will be relying on the services of third-party contractors, engineering firms, and inspectors. We have found this approach yields the highest labor and cost efficiencies in getting projects completed on time and on budget.

MBC will create a Request for Proposals (RFP) package for construction that will include Federal labor and employment requirements for this work. MBC will ask that responding contractors include statements that offer compliance with those policies and procedures to ensure compliance with NTIA standards. MBC will also outsource the field engineering and design services, and the third-party inspection services to ensure the fiber Routes are installed according to specifications and planned Routes and within our permitted use from the Virginia Department of Transportation, all railroad crossings, and other utilities including electric cooperatives and providers, natural gas providers, water/sewer infrastructure operators, and land use development requirements.

Since MBC will be issuing and evaluating competitive bids for engineering/design, construction, and inspection services for this project, MBC is unable to provide records of compliance or certifications from contractors or subcontractors since they have not been selected yet.

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Officer Certification

In order for NTIA to evaluate an applicant's demonstrated record of and plans to be in compliance with federal labor and employment laws, each applicant must provide examples of items described in III.H in the NOFO. Applicants are asked to upload a Certification from an Officer/Director-level employee (or equivalent) of the applicant evidencing consistent past compliance with federal labor and employment laws by the applicant, as well as contractors and subcontractors.

Certificate-labor-09-27-2022 04-04-Mid-Atlantic Broadband Communities Corpo-GRN-000320.pdf

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Highly Skilled Workforce

To ensure that applicants have the technical and operational capacity to carry out the project, applicants must submit a plan for ensuring that the project workforce will be an appropriately skilled and credentialed workforce (including by the applicant and each of its contractors and subcontractors). The plan for a highly skilled workforce should include the information described in III.I in the NOFO.

This response is limited to 6
000 characters as an open field narrative.

MBC has over 16 years of experience with building, operating, and maintaining open-access fiber networks in southern Virginia. MBC has been successful in meeting carrier service level agreements and managing fiber outages (i.e. cuts), damages to outside plant infrastructure, and other issues which disrupt our optical transport services. The reason we are successful is we have hired skilled and experienced contractors to build the networks according to our specifications, which has minimized inferior work and provided a quality infrastructure that serves the needs of our telecom carriers in the region. MBC has maintained a high level of network uptime and customer satisfaction which we will continue to strive.

As MBC develops the RFPs for construction, we will include mention our desire for contractors to make use of existing workforce development programs in our region while recruiting employees for various levels of construction activity.

Outside plant construction services and skilled labor go hand in hand. There are not really certifications or licenses other than state issues contractor licenses. The best training on the market is on-the-job training, and the contractors that MBC uses in the region have found hard-working employees that enjoy their jobs that are mostly outdoor, and they tend to stick with the same contractor when the workloads are consistent.

All construction and inspection services that are part of this project will be completed by a third-party prime contractor.

As Virginia is a right-to-work state, MBC will not require union labor on any construction project as we are not required to do so. MBC will welcome a review of all bids from all experienced contractors qualified to complete the scope of work whether they are unionized or not. The contractor(s) selected to build Segments 1-8 of this project will be provided information on types of information to deliver to MBC which will be kept on file regarding their employment mix, job titles, safety training plans, any certification or license required including confined space training, and other training.

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Advancing Workforce Development

A skilled workforce is critical to meeting infrastructure buildout timelines under the Infrastructure Act and connecting households across the country to reliable, affordable, high-speed broadband. A well-trained workforce will also allow for the safe deployment of sustainable networks. To meet the workforce needs of the MMG Program, applicants must make appropriate investments to develop a skilled, diverse workforce. Each applicant must provide as part of its application examples of items described in III.J in the NOFO.

This response is limited to 6000 characters as an open field narrative.

MBC agrees that a skilled workforce is critical to meeting infrastructure buildout timelines and producing a quality open-access fiber network build on time and on budget.

MBC relies on the services of local and regional contractors to build and maintain our 2,000-Route mile fiber network within the Commonwealth of Virginia. MBC continues to demand efficient and skilled services from contractors, splicers, inspectors, project managers, auditors, etc. that are part of our various projects.

Since MBC will be producing an RFP for construction-related services for this project, we are unable to certify what workforce development activities our contractors and subcontractors may apply.

MBC does track our annual expenditures related to Small, Women, And Minority (SWaM) owned businesses that are certified and registered as a SWaM business with the Commonwealth of Virginia – typically we expend around 30% of our annual spend with those vendors and have a good track record of vendor performance when it comes to those activities.

We will request that the selected contractor reach out to populations that have been underrepresented in broadband and information technology jobs, and those that face structural barriers to participation in the labor market. These are very laudable goals, and MBC will do its level best to communicate the opportunities to other entities and non-profit organizations for outreach to their members.

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Climate Resiliency

Please demonstrate that the applicant has sufficiently accounted for current and future weather- and climate-related risks to new MMG Program infrastructure projects. In particular, each applicant should clearly demonstrate how it is conducting the items listed in III.K in the NOFO.

This response is limited to 6000 characters as an open field narrative.

NOAA and FEMA disaster and risk indices provided for the last 20 years indicate that the proposed project's twelve (12) rural Virginia counties and the independent City of Petersburg are at risk for continued severe weather events that include tornadoes, flooding, landslides, strong winds, hail, lightning, winter storms, heat waves, drought, and/or hurricanes. Given the absence of significant global mitigation and regional adaptation efforts, climate change impacts are anticipated to increasingly disrupt and damage critical infrastructure in these communities, including telecommunications. Historically unprecedented warming is projected during this century in Virginia, which will result in higher temperatures that produce a rise in heat waves and periodic droughts, and an increase in annual precipitation that will increase the number and intensity of extreme precipitation events. These weather and climate risks threaten to potentially impact new Middle Mile infrastructure. Therefore, the resilience of communications systems is one of the most critical aspects of community

resilience, as nearly all other forms of infrastructure are dependent on clear and reliable communications. A communications system's resilience is its ability to withstand these changing conditions, from routine hazards, design hazards, or extreme events, and to recover rapidly from disruptions. Increasing the availability (accessibility), reliability, and capacity of telecommunications systems in rural Virginia will improve performance and ability for recovery efforts, which will enhance overall resiliency. The purpose of the proposed project to "expand MBC's existing open access fiber optic infrastructure network and alleviate the absence of reliable broadband access" in central Virginia is a direct step being taken to address shortcomings of the regional telecommunications system, which will mitigate climate risks and improve resiliency.

Improving infrastructure components to avoid failing is just one-way MBC can assist rural Virginia communities to address resilience and help prepare for future severe weather events. FEMA risk indices indicate that the counties within the project area have very low or relatively low risk, which results from lower loss due to natural hazards, lower social vulnerability, and higher community resilience. The proposed project will primarily consist of burying fiber optic cable or conduit, which will be less susceptible to damage from severe weather hazards. The use of fiber optic broadband, rather than the copper wire used for alternatives such as DSL and cable internet, is more sustainable and hardier to natural elements. Based on fiber's superior bandwidth capabilities, cabling industry experts have determined that fiber may effectively remain in place for more than twenty-five years, which equates to less damage, fewer repairs, and reduced material waste. The proposed fiber will tie into MBC's existing network, which is designed to protect itself against network failures with redundancy and an around-the-clock operations center that can re-Route traffic immediately. Hazard screenings with the most current tools and information resources available to characterize new risks and identify changing conditions, conducted every five to ten years, will ensure that risks are effectively understood and being appropriately mitigated.

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Civil Rights and Nondiscrimination Law Compliance

Prior to distributing any MMG Program funding to a prospective awardee, NTIA will require the prospective awardee to agree, by contract or other binding commitment, to abide by the non-discrimination requirements set forth in III.J in the NOFO.

Do you agree to abide by the non-discrimination requirements?

Yes

———

Certification of Technical Capability

Each applicant must supply a certification attesting that it is technically qualified to complete and operate the proposed project.

2-09-27-2022 02-28-Mid-Atlantic Broadband Communities Corpo-GRN-000320.1 Certificate-Technical Capacity.pdf

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Interconnect Policy

The Applicant must describe in detail the nondiscrimination, interconnection, and network management practices that would be adopted for the project facilities. The Applicant should describe how it will comply with nondiscrimination and interconnection obligations, particularly with connectivity to the public Internet and physical interconnection for the exchange of traffic. In addition to describing network management practices, the Applicant should disclose any practices in place to block access to illegal or harmful content.

This response is limited to 6000 characters as an open field narrative.

MBC has embraced the concept of open-access networks since its inception in January 2004. It is absolutely critical that networks built with public funds that will benefit the public be open to any and all providers, including incumbent telephone companies and MSO cable companies.

MBC has a long and successful track record with open-access networks, as evidenced by our successful project in Southern Virginia. Over 50 telecommunications service providers use the MBC network today to reach unserved and underserved markets. These customers range from billion dollar to small wireless ISPs and local competitive exchange carriers.

The proposed middle-mile network build project shall be a wholesale, open access network built for use by retail telecommunications service providers. This policy can be found at www.mbc-va.com/Interconnect and this policy will be offered in perpetuity.

From a policy perspective, MBC does not discriminate against any carrier and is open to all interconnection requests. Most carriers interconnect with MBC today for a variety of Layer 1 & Layer 2 transport requirements and MBC has completed Master Service Agreements with those carriers. MBC traditionally utilizes a Network to Network Interconnect (NNI) which allocates a 10G or 100G port between MBC's network and the Carrier customer network. MBC and the carrier can then provision circuits on each other's network utilizing VLAN tags to identify bandwidth and circuit ID for various customers.

MBC connects to both the "public" internet and peering exchanges in several locations, including carrier-neutral interconnection facilities of TeIX at 56 Marietta Street in Atlanta, Georgia, Pixel Factory, and DE-CIX exchange points in Richmond, Virginia at the QTS Data Center in Sandston, Virginia and the Equinix facility in Ashburn, Virginia. MBC brings a wide range of carrier-neutral interconnection options to this project, which will greatly exceed the NTIA requirements for non-discrimination and network interconnection obligations.

As a primarily Layer 1 and Layer 2 optical transport provider, MBC does not and will not block access or packet shaping, or restrictions on connectivity or bandwidth utilization. MBC provisions either wavelength or Ethernet circuits over our existing optical platforms and dedicates allocated bandwidth as needed.

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Technical Overview

Please describe targeted last mile service objectives, including last mile service provider letters of commitment, agreements, or contracts; and a description of the proposed service offerings, including the pricing of the services to be offered over the proposed facility.

This response is limited to 6000 characters as an open field narrative.

MBC has operated and maintained a robust 2,000 Route mile open-access network providing wholesale transport and dark fiber leasing/IRU and colocation services for over 15 years. Our customers provide the last mile, retail broadband service to their residential, business, and enterprise customers in our region.

For any route that MBC builds, we incorporate access points along the route for our customers. These access points are found in splice cases along the route where we can tie into our main middle mile cable and provide a fiber tail which the retail end-user telecom provider may splice into and serve their customers. We support all last mile objectives as some of our customers build fiber to the home and offer 1Gbps speeds, other customers extend their own fiber to a cell site to serve a wireless provider (4G/LTE or 5G at times), or other wireless ISP's that provide high-speed services to hard-to-reach customers. We have attached letters of support and commitment from several of our telecom service provider customers along this Route. We are unable to share any contractual agreements including Master Service Agreements, Sales Orders, Service Level Agreements, etc. due to confidentiality agreements and Non-Disclosure Agreements with our customers.

We offer highly competitive and market-based rates to access the MBC transport network and utilize our dark fiber network via lease or IRU basis. MBC does not have a standard pricing sheet, as all customer requests are ICB (Independent Cost Basis). Many times a short fiber lateral or build or equipment augmentation is required to turn up a customer service, and MBC has to factor those costs into our ROI model and provide competitive Non-Recurring Charges and Monthly Recurring Charges. MBC will not share that pricing information with NTIA review due to confidentiality requirements.

MBC has identified access points along Segments 1-8 which will be used by retail telecom service providers to reach new customers and ensure underserved and unserved areas can take advantage of this new middle mile infrastructure. This process is standard day-to-day business for MBC as we do this frequently and with success as indicated by our long-term customer base and improved broadband services in the region.

MBC typically installs 100' slack coils in our underground handholes, and 100' slack loops for aerial installations (and we plan to do so as part of this project). This is primarily due to maintenance activities due to a fiber cut where excess fiber needs to be pulled from both directions to connect to new splice case to repair the cut section of fiber. Each fiber repair due to cut typically requires 25'-30' of fiber from each handhole. With 100' of slack, you are able to repair fiber up to 3 times without major issue. If you plan on using only 50' of slack, then you run the risk of only being able to make 1 repair, and then not having enough slack fiber for future fiber repairs – and that's over 15 to 20 years so an extra 50' of fiber as part of this application should be seen as a good operational strategy to maintain the fiber asset.

MBC's proposed points of interconnection have sufficient space to allow colocation from other ISP's and telecom providers. MBC maintains our original 12'x20' concrete shelter buildings (room for 6-9 colocation racks in addition to MBC equipment and batteries, fiber patch panels, etc). MBC has expanded many of our colocation facilities over time, and new facilities are 14'x26', which can support 30 racks of colocation equipment from ISP's and other telecom providers.

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Applicants are encouraged to upload supplemental documentation.

Batched Letters of Support FINAL-09-28-2022 11-23-Mid-Atlantic Broadband Communities Corpo-GRN-000320.pdf

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Competitive Landscape

The Applicant should describe existing middle mile offerings in the area, if any, including competitor data if applicable. This should include a description of the proposed service offerings, including the pricing and technology of the services to be offered over the proposed facility. Where possible, Applicant's project should be able to demonstrate a decline in middle mile costs that are likely to flow through to consumer broadband prices.

This response is limited to 6000 characters as an open field narrative.

MBC has been operating in southern Virginia for over 15 years and is familiar with all providers and access options that exist along the segments we have proposed. Since MBC is proposing a highly efficient segment-by-segment build that ties into MBC's existing infrastructure, are the competitive details around each segment are as follows:

[redacted]

Segment 3: Dinwiddie to Prince George: This segment routes through very difficult areas, and there are over 6 railroad crossings to get from one side to the other.

Segment 4: MAMaC lateral to Emporia, Greensville County: There are some long-haul fiber routes along Interstate 95 going north/south, but those networks are not accessible for local access.

Segment 5: Farmville to HIT data center park: the area. Fiber and wireless are prevalent.

Segment 6: Sussex Megasite Lateral: There are long-haul networks along Route 460, but those networks do not allow local access points into their fiber routes.

Segment 7: Farmville HIT Data Center Park to Cumberland:

Segment 8: Cumberland to Louisa/Shannon Hill: In the northern end of Cumberland County, On Route 250, there are several regional middle mile networks that MBC can access, to allow interconnection for longer Routes to peering locations in Charlottesville and Richmond.

MBC's network will allow last-mile providers to access these new markets without expending capital to build their own middle-mile networks. It has been our experience over the past several years that last mile providers that utilize a middle mile network do not necessarily reduce the consumer broadband price; they utilize the cost savings to reach those customers in the first place. Without an affordable

middle mile network, those last mile providers would be unable to reach these unserved and underserved markets, thus preventing the expansion of broadband services. Most of the last-mile providers offer fixed-price monthly broadband services for all of their customers based on speeds. For example, a last-mile provider charges $49 per month for a 100Mbps service...that provider would not charge $69 per month for a 100Mbps service to customers they could not reach – but with a middle mile network cost-effectively extending their service to unserved markets, they can reach those customers and charge their standard $49 per month rate for services.

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Type of technology to be used in proposal:

Fiber Optic Technology

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Each applicant of an award to build middle mile infrastructure using fiber optic technology shall certify that the proposed project, upon completion, will include direct interconnection facilities that will facilitate the provision of lit broadband service, at speeds not less than 1 Gigabit per second for downloads and 1 Gigabit per second for uploads to anchor institutions located within 1,000 feet of the middle mile infrastructure, as detailed in the Template CAI below.

Do you agree to certify to the above?

Yes

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Upload Template CAI. Required for Fiber Optic Technology, optional for Wireless or Other.

2-09-27-2022 03-02-Mid-Atlantic Broadband Communities Corpo-GRN-000320.5.2.1 MBC-MMG Community Anchor Institution Final.xlsx, MBC-MMG Community Anchor Institution Final-RE-04-19-2023 11-40-Mid-Atlantic Broadband Communities Corpo-GRN-000320.xlsx

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An eligible entity applying for a middle mile grant may seek, and the Assistant Secretary may grant, a waiver of the requirements set out in the previous paragraph, in full or in part, to the extent the eligible entity demonstrates that the requirement is not technically or economically feasible.

Do you plan to apply for a waiver? If yes, please attach the waiver application in the Application Workspace, the Application Information section, Required Documents under Required Document Question 4 "Additional Waiver Upload".

No

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Network Route Maps

Applicants should provide a physical network map that includes the following (if applicable):

The Project Area and those unserved and underserved areas which it will enable.
Applicant‘s pre-existing service area that demonstrates current service levels.
The physical path of the network‘s transmission medium (e.g., backbone and lateral cable routes, microwave links), transmission type, technology, operating bandwidth, capacity (e.g., dark vs. lit strand count), and cable placement (e.g., aerial, burial) should be displayed.
Points of interconnection (purely passive and non-environmentally controlled nodes, e.g., splice points are optional):Provider Facilities
Collocation Facilities
Private Interconnection Points with partnering service provider/private network

Wireless towers and associated coverage areas.
Anchor institutions within 1,000 feet, if desired.
Additionally, the maps should delineate between network and facilities that are:Part of the Applicant's/key partners' existing network;
Proposed as part of this project;
Leased from a third party;
Utilized under some alternative arrangement; or
Relevant to interconnection with either Last Mile or Middle Mile service providers.

PLEASE NOTE: Only ESRI Shapefiles will be accepted and uploaded.

2-09-27-2022 03-03-Mid-Atlantic Broadband Communities Corpo-GRN-000320.6 NTIA Grant Shapefiles_MBC.zip
———
Data Submission Specification

There is a template “Upload Template Data Submission Specification” which shall be uploaded. Applicants must complete the table with information for all interconnection points proposed for the network. This table has three required fields: Point Name, Latitude and Longitude. This should accommodate all of the points of interconnection (passive, non-environmentally controlled points of interconnection, e.g., splice points, may be excluded), collocation facilities, central offices, head ends, and other centralized facilities, network access points to Last Mile service providers, Internet peering points, and towers.

proj 2-09-27-2022 03-05-Mid-Atlantic Broadband Communities Corpo-GRN-000320.7-data submission spec.xlsx
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Network Diagram

The Applicant must provide a high-level network diagram to be uploaded for the project that is a representation of the network, capacities, and facilities. The diagram must clearly denote which of the network elements already exist. The diagram should show:

The links between the network nodes. The types of facilities used in connecting the network elements (fiber, wireless microwave, etc.).

The points of interconnection and collocation facilities, including Internet peering points, access to local exchange carriers, central offices, or cable head ends.

The proposed aggregation node facilities that will provide the egress point(s) from the broadband backbone to the networks of the selected service provider(s), named Last Mile service providers, and the selected named Internet Service Provider(s) in the new infrastructure.

The Applicant should show which technologies are used and include bandwidth capacity constraints.

2-09-27-2022 03-19-Mid-Atlantic Broadband Communities Corpo-GRN-000320.8 - nw logical diagram.pdf, proj 2-04-19-2023 11-41-Mid-Atlantic Broadband Communities Corpo-GRN-000320.8 - nw logical diagram-REV1.pdf

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Environmental Narrative

Any project-related activity that may adversely affect the environment must not be undertaken prior to the completion of the environmental review process prescribed by NTIA. Doing so may jeopardize consideration of the application.

All Applicants for MMG projects must comply with the National Environmental Policy Act, the National Historic Preservation Act, and the Endangered Species Act, and other applicable environmental regulations.

Please provide a service-area environmental description that describes the physical project area and its surroundings (e.g., disturbed or developed land vs. open space; adjacent natural resources, such as rivers, wetlands, or forestlands; and any protected lands or resources in or near the project area), including site photographs and aerial photographs (e.g., Google Earth or Google Maps images), if the project includes construction and/or ground disturbing activities.

This response is limited to 12000 characters as an open field narrative with image files to be uploaded.

The majority of the proposed fiber will be installed underground via plowing to a depth of 36 inches with cable placement within two 1.5-inch diameter conduits. A minimal length of the proposed fiber will either be installed underground via directional drilling to avoid potential environmental impacts or will be extended overhead on utility poles where underground installation is not possible. All components proposed for installation, and construction staging areas, will be located primarily within public roadway rights-of-way maintained by the Virginia Department of Transportation (VDOT) or within permanent easements approved for MBC's use. Total land disturbance for all eight routes is conservatively estimated to be 159.28 acres, which is based on a predominance of plowing with additional offset by either directional drilling or overhead extension to avert environmentally sensitive areas. Minor maintenance activities may occur following fiber optic line installation but none that would entail any ground-disturbing activities. The general project area is characterized as mostly rural. The proposed project will occur along wetlands, rivers/streams, floodplains, potentially threatened and endangered species habitats, and historic/archaeological resources; however, impacts on these resources will be avoided. Mitigation measures will be employed to offset any potential adverse impacts anticipated during construction.

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Upload Map Images:

Project Information 2-09-27-2022 03-16-Mid-Atlantic Broadband Communities Corpo-GRN-000320.9 Environmental Narrative.zip

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Template Table of Funded Partners and Unfunded Collaborators

List all funded and unfunded project collaborators, including partners, subrecipients, match providers, major contractors/supplies, details on role/scope of work for project. A fillable Template of Funded Partners and Unfunded Collaborators can be found in found in the MMG ZIP folder.

3-09-27-2022 03-31-Mid-Atlantic Broadband Communities Corpo-GRN-000320.2 MBC-MMG Template Table of Funded Part. and Unfunded Collaborators Final.xlsx, MBC-MMG Template Table of Funded Part-04-19-2023 11-42-Mid-Atlantic Broadband Communities Corpo-GRN-000320. and Unfunded Collaborators Final-REV1.xlsx

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Certificate of Operational Capability

Each applicant must supply a certification from an officer-level employee (or individual of comparable rank) attesting to the applicant's operational capability to complete and operate the proposed project.

If the applicant has provided a voice and/or broadband internet access service, it must supply a certification from an officer-level employee (or individual of comparable rank) attesting that it has

filed FCC Form 477s and the Broadband DATA Act submission, if applicable, to the extent required during this time period and otherwise complied with the Commission's rules and regulations. Alternatively, the applicant must explain any pending or completed enforcement action, civil litigation, or other matter in which it was alleged to have failed to comply with Commission rules or regulations.

If the applicant has operated only an electric transmission or distribution service, it must submit qualified operating or financial reports that it has filed with the relevant financial institution for the relevant time period along with a certification that the submission is a true and accurate copy of the reports that were provided to the relevant financial institution.

If applicable, the applicant must submit a certification from an officer-level employee (or individual of comparable rank) that is has operated a middle mile broadband network for at least two years or that it is a wholly owned subsidiary of such an entity and must specify the number of years the applicant or its parent company has been operating.

3-09-27-2022 03-38-Mid-Atlantic Broadband Communities Corpo-GRN-000320.3 Certificate-Operational capacity.pdf

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Certification of Financial Capability

Each applicant must supply a certification from an officer-level employee (or individual of comparable rank) attesting that it is financially qualified to meet the obligations associated with a project, that they will have available funds for all project costs that exceed the amount of the grant, and that they will comply with all MMG Program requirements, including service milestones.

1-09-27-2022 03-41-Mid-Atlantic Broadband Communities Corpo-GRN-000320.1 Certificate-Financial capacity.pdf

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Letter of Credit

During the application process, each applicant must submit a letter from a bank meeting eligibility requirements consistent with those set forth in 47 C.F.R. § 54.804(c)(2) committing to issue an irrevocable stand-by letter of credit, in the required form, to the applicant. The letter shall at a minimum provide the dollar amount of credit offered and the issuing bank's agreement to follow the terms and conditions of NTIA's model letter of credit. NTIA shall publish on its website a model letter of credit substantially similar to the model letter of credit established by the Federal Communications Commission in connection with the Rural Digital Opportunity Fund (RDOF - Rural Digital Opportunity Fund Order, 35 FCC Rcd at 773-77, Appx. C.).

NTIA will ensure, prior to issuing a middle mile grant award, that each eligible entity obtains an

acceptable, irrevocable standby letter of credit in a value of no less than 25 percent of the award amount.

Each eligible entity shall provide with its letter of credit an opinion letter from its legal counsel clearly stating, subject only to customary assumptions, limitations, and qualifications, that in a proceeding under Title 11 of the United States Code, 11 U.S.C. § 101 et seq. (the "Bankruptcy Code"), the bankruptcy court would not treat the letter of credit or proceeds of the letter of credit as property of the winning bidder's bankruptcy estate under Section 541 of the Bankruptcy Code.

1-09-27-2022 03-42-Mid-Atlantic Broadband Communities Corpo-GRN-000320.2 Letter of credit.pdf, Letter of Credit 10-18-22-10-19-2022 04-38-Mid-Atlantic Broadband Communities Corpo-GRN-000320.pdf, Letter of Credit 4-6-23-04-19-2023 11-44-Mid-Atlantic Broadband Communities Corpo-GRN-000320.pdf

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Audited Financial Statement (Previous 3 Years)

Each applicant shall submit financial statements from the most recent fiscal year that are audited by an independent certified public accountant. If the applicant is not audited in the ordinary course of business, in lieu of submitting audited financial statements it must submit unaudited financial statements from the three prior fiscal years and certify that it will provide financial statements from the three prior fiscal years that are audited by an independent certified public accountant by an NTIA specified deadline.

***You must provide 3 years of audited financial statements.**

FY 2020 Auditors' Report and MBC Audited Cons-09-27-2022 03-42-Mid-Atlantic Broadband Communities Corpo-GRN-000320.30.2020.pdf, Auditors' Report and MBC Consolidated Financi-09-27-2022 03-42-Mid-Atlantic Broadband Communities Corpo-GRN-000320.30.2021.pdf, Independent Auditors' Report and Audited Cons-09-27-2022 03-42-Mid-Atlantic Broadband Communities Corpo-GRN-000320.30.19.pdf

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Budget Narrative

Applicants will create and submit a budget narrative that adequately describes all proposed activities and costs for their grant-funded project. Applicants must complete the file template, fill in all required information, and upload the file
. The file must be uploaded as a Word file, and not converted to a PDF. You can find additional guidance in the MMG Application Guidance.

Budget Narrative FINAL-09-27-2022 03-56-Mid-Atlantic Broadband Communities Corpo-GRN-000320.docx, Budget Narrative FINAL-10-19-2022 04-30-Mid-Atlantic Broadband Communities Corpo-

GRN-000320.docx, Budget Narrative-TD1-REV1-04-19-2023 11-45-Mid-Atlantic Broadband Communities Corpo-GRN-000320.docx

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Template Detailed Budget Justification

The Detailed Budget Justification spreadsheet must reflect the cost categories that appear on the SF-424 and SF-424C and include itemized calculations for each cost placed under those categories. A fillable Template Detailed Budget Justification can be found in found in the MMG ZIP folder.

MBC-MMG Template Detailed Budget Justificatio-09-28-2022 05-13-Mid-Atlantic Broadband Communities Corpo-GRN-000320.xlsx, budget 3-04-19-2023 11-45-Mid-Atlantic Broadband Communities Corpo-GRN-000320.2 MBC-MMG Template Detailed Budget Justification-REV1.xlsx

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Any other funding provided for this project?

Yes

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Please describe.

On March 10, 2022 Virginia DHCD awarded GO Virginia Region 3 a $5,000,000 grant for the MBC Middle Mile Construction Project contingent on MBC securing the additional funding required to complete the project.

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Template Pro Forma

Pro forma financial projection and analysis related to the project's sustainability, inclusive of subscriber (e.g., last mile network connections, other wholesale services), across an eight-year forecast period. A fillable Template Pro Forms can be found in the MMG ZIP folder.

3-09-27-2022 03-57-Mid-Atlantic Broadband Communities Corpo-GRN-000320.3 Pro Forma Final.xlsx, MBC-MMG Template Pro Forma Final-REV1-04-19-2023 11-46-Mid-Atlantic Broadband Communities Corpo-GRN-000320.xlsx

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