



ENVIRONMENTAL ASSESSMENT

**VAN BUREN COUNTY FIBER RING
PROJECT**

**BLOOMINGDALE COMMUNICATIONS INC.
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BLOOMINGDALE, MICHIGAN**

Prepared for
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National Telecommunications and Information Administration
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TABLE OF CONTENTS

EXECUTIVE SUMMARY1

CHAPTER 1 PURPOSE AND NEED3

1.1 Introduction3

1.2 Purpose and Need3

CHAPTER 2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES.....5

2.1 No Action Alternative5

2.2 Proposed Action – Combination of Underground Construction & Aerial Installation5

2.3 Alternative 1 – Underground Construction9

2.4 Alternative 2 – Aerial Installation9

2.5 Alternatives Considered and Removed from Further Consideration9

CHAPTER 3 DESCRIPTION OF AFFECTED ENVIRONMENT11

3.1 Noise 11

3.2 Air Quality 11

3.3 Climate, Greenhouse Gases, and Global Warming 12

3.4 Geology, Seismicity and Soils.....13

3.5 Water Resources 17

3.5.1 Surface Water 18

3.5.2 Groundwater..... 19

3.5.3 Wetlands.....20

3.5.4 Floodplain Management.....20

3.5.5 Wild & Scenic Rivers.....21

3.5.6 Coastal Zone Management.....21

3.5.7 Coastal Barriers Resources22

3.5.8 Critical Dune Areas22

3.6 Biological Environment.....23

3.6.1 Eco-regions23

3.6.2 Threatened and Endangered Species.....23

3.6.3 Migratory Birds.....25

3.7 Historical and Cultural Resources25

3.7.1 Archeological Resources.....26

3.7.2 Architectural Resources26

3.7.3 Native American Resources27

3.8 Aesthetic and Visual Resources28

3.9 Land Use.....28

3.10 Infrastructure29

3.11 Socioeconomic Resources - Environmental Justice31

3.12 Human Health & Safety32

3.13 Hazardous Materials.....32

CHAPTER 4 ANALYSIS OF ENVIRONMENTAL IMPACTS32

4.1 Noise41

4.2 Air Quality43

4.3 Climate, Greenhouse Gases, and Global Warming45

4.4 Geology, Seismicity and Soils.....46

4.5 Water Resources52

4.5.1 Surface Water55

ENVIRONMENTAL ASSESSMENT
Van Buren County Fiber Ring
Van Buren, Berrien & Allegan Counties, Michigan

4.5.2	Groundwater.....	58
4.5.3	Wetlands.....	59
4.5.4	Floodplain Management.....	61
4.5.5	Wild & Scenic Rivers.....	61
4.5.6	Coastal Zone Management.....	62
4.5.7	Coastal Barriers Resources.....	63
4.5.8	Critical Dune Areas.....	64
4.6	Biological Environment.....	65
4.6.1	Eco-regions.....	65
4.6.2	Threatened and Endangered Species.....	66
4.6.3	Migratory Birds.....	69
4.7	Historical and Cultural Resources.....	70
4.7.1	Archeological Resources.....	70
4.7.2	Architectural Resources.....	72
4.7.3	Native American Resources.....	73
4.8	Aesthetic and Visual Resources.....	75
4.9	Land Use.....	76
4.10	Infrastructure.....	77
4.11	Socioeconomic Resources - Environmental Justice.....	81
4.12	Human Health & Safety.....	82
4.13	Hazardous Materials.....	83
4.13	Cumulative Impacts.....	84
CHAPTER 5 APPLICABLE ENVIRONMENTAL PERMITS & REGULATORY REQUIREMENTS.....		86
CHAPTER 6 AGENCIES & PERSONS CONTACTED.....		88
CHAPTER 7 REFERENCES.....		92
CHAPTER 8 SUBMITTAL REQUIREMENTS.....		95
 APPENDICES		
APPENDIX A LIST OF FIGURES		
APPENDIX B ACRONYMS		
APPENDIX C PHOTOGRAPHS		
APPENDIX D AGENCY CORRESPONDANCE		
APPENDIX E RESEARCH & DOCUMENTATION		
APPENDIX F REGULATORY DATABASE REPORT(S)		

EXECUTIVE SUMMARY

Bloomingtondale Communications Inc. (BCI) in Bloomingtondale, Michigan has been awarded grant funding from the National Telecommunications and Information Administration (NTIA) through the Broadband Technology Opportunities Program (BTOP). BCI is submitting this Environmental Assessment (EA) to NTIA in compliance with the National Environmental Policy Act (NEPA).

Bloomingtondale Communications Inc. (BCI) started as a small, rural telephone company in 1904. The company currently provides telephone, internet and video services in Bloomingtondale, Paw Paw and surrounding outlying areas. BCI has a proven reputation of deploying applications that can reduce operating costs, increase services, improve customer satisfaction and increase revenue generation.

The purpose of the Van Buren County Fiber Ring project is to provide underserved community anchor institutions, public safety entities and economically distressed areas in Van Buren County and parts of Berrien and Allegan Counties with high-quality broadband service. The project is needed since the project area lacks broadband service to meet the needs of the anchor institutions, public safety entities and its residents and is anticipated to stimulate the demand for broadband, and to foster economic growth and job creation. BCI and Merit Networks Inc. (Merit) plan to interconnect in South Haven at Lake Michigan College to provide all the schools in the Van Buren Intermediate School District, the libraries, and computer center access to the colleges and universities in Michigan. BCI will partner with the City of South Haven to connect government and other community anchor institutions to the fiber network and will also interconnect with the Pullman Elementary School in Allegan County. Michigan State University will expand 84 existing computer centers and establish 4 new computer centers throughout the State of Michigan with funding by a round one NTIA grant. Four of those computer centers will be located in libraries within Van Buren County and will be able to connect to the Van Buren County fiber ring. The fiber ring connecting to BCI's connection to a state-wide fiber network will provide access to sufficient bandwidth that the libraries need but do not have. This connection would allow the libraries to expand upon vital services they offer, including but not limited to providing job information, resource sharing among libraries and computer centers, distance learning, and business start-up training.

When complete, the project will connect the proposed 31 anchor institutions (libraries and schools) and 2 public safety entities through a state-of-art network. The Fiber Ring will pass approximately 12,157 households, 1,058 business, and 58 community anchor institutions. The project will involve the construction of middle mile broadband infrastructure in existing previously disturbed roadway and utility ROWs or on existing poles along the roadways within the three counties. This proposed project will extend approximately 137.5 miles of fiber optic cables to areas that have not had been able to get adequate broadband service. Approximately 27.5 miles of the project involve the underground installation of fiber and approximately 110 miles of the project involve aerial installation of fiber on existing utility poles. Evaluation and use of existing conduits combined with directional boring will minimize impacts. No new utility corridors are planned. Replacement of poles is planned where necessary due to damage or defect that may be uncovered during the process; however, no new poles are planned. Minimizing impact to the environment will be achieved by using existing, previously disturbed roadway and utility ROWs for the entire 137.5 miles. Refer to maps in Appendix A for the proposed project route.

The alternatives considered for the proposed Van Buren County Fiber Ring project are based on leveraging upon other Recovery Act awardees' project from round one. This includes collaboration with the NTIA BTOP awardees of Michigan State University and Merit. Routes were determined by

ENVIRONMENTAL ASSESSMENT
Van Buren County Fiber Ring
Van Buren, Berrien & Allegan Counties, Michigan

connection points available to Merit's network. The final routes were determined by considering the following factors: locations of community anchor institutions to be served, water crossings, cost efficiency, environmental impact and opportunities to leverage Merit Communications Round 1 infrastructure.

The No Action Alternative involves not constructing the Van Buren County Fiber Ring, and therefore, no access to high quality broadband service to simulate local economic growth, job creation and provide the technology necessary to compete in regional and global environments. Alternative 1 involves underground installation of fiber optic cables only and Alternative 2 involves aerial installation of fiber optic cables only; wireless technology was considered and dismissed from consideration. The Proposed Action involves using a combination of underground and aerial fiber installation. Based on the use of existing previously disturbed roadway and utility ROWs, including the use of existing utility poles, adverse impacts to the environment would be minimized. Positive impacts from implementing the Proposed Action include fulfilling the BTOP statutory purpose to provide education, awareness, training, access, equipment and support to (i) schools, libraries, medical and healthcare providers, community colleges and other institutions of higher learning, and other community support organizations; (ii) organization and agencies that provide outreach, access equipment, and support services to facilitate greater use of broadband services by vulnerable populations (e.g., low-income, unemployed, aged). Based on the information gathered and analyzed, the impacts to the affected environment resulting from the proposed Van Buren County Fiber Ring Project were determined to be insignificant.

CHAPTER 1 PURPOSE AND NEED

1.1 Introduction

Funding for this project is provided by the Department of Commerce (DoC), National Telecommunication & Information Administration (NTIA) under the American Recovery and Reinvestment Act of 2009 – DoC Standard Terms and Conditions; 75 FR 3792, January 22, 2010; 75 FR 10464, March 8, 2010; 75 FR 14133, March 24, 2010. Recipient Award Number NT10BIX5570099 in the amount of \$5,646,473.00. This federal grant was awarded to Bloomingdale Communications Inc., for the construction of the Van Buren County Fiber Ring. The grant will allow Bloomingdale Communications Inc. to deploy a high-speed fiber network that will connect the Van Buren Intermediate School District (ISD) to the ISD – Berrien County Regional Educational Services. Bloomingdale also plans to interconnect with the City of South Haven to provide improved broadband access to city hall and additional 18 city locations, including community anchor institutions, as well as interconnect with the Pullman Elementary School in Allegan County.

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing that NEPA [Title 40 Code of Federal Regulations (CRF) Parts 1500 through 1508], and NTIA regulations for NEPA compliance (44 CFR Part 10), NTIA must fully consider the potential environmental impacts of the proposed project. The President’s CEQ has developed regulations for implementing the NEPA. The federal regulations set forth in 40 CFR Parts 1500-1508 require an evaluation of the Proposed Action and alternatives. The required evaluation is provided in this Environmental Assessment (EA). A second purpose of this EA is to determine whether the preparation of a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) should be the subsequent step in fulfilling the NEPA process.

The Council on Environmental Quality (CEQ) has developed regulations for implementing the NEPA. These federal regulations set forth in accordance with federal laws and DOC regulations, the EA process for a proposed federal action must include an evaluation of alternative and a discussion of the potential environment impacts. This EA was prepared in accordance with DoC’s regulations as required under the NEPA. As part of this NEPA review, the requirements of other environmental laws and executive orders are addressed.

1.2 Purpose and Need

The objective of the Broadband Technology Opportunities Program (BTOP), administered by the National Telecommunications and Information System Administration (NTIA) of the U.S. Department of Commerce is to fund projects provided by The American Recovery and Reinvestment Act (ARRA) that would expand access to and adoption of broadband services across the United States.

The purpose of the Van Buren County Fiber Ring project is to provide underserved community anchor institutions, public safety entities and economically distressed areas in Van Buren County and parts of Berrien and Allegan Counties with high-quality broadband service. The project is needed since the project area lacks broadband service to meet the needs of the anchor institutions, public safety entities and its residents and is anticipated to stimulate the demand for broadband, to foster economic growth and job creation and to empower residents.

The Proposed Action involves using a combination of underground and aerial fiber cable installation;

methods of installation decisions were based upon availability of existing utility poles, leveraging existing fiber optic lines (Merit), sensitive environmental areas (such as wetlands, waterways and sensitive natural habitats), existing infrastructure and cost. Based on the use of existing previously disturbed roadway and utility ROWs, including the use of existing utility poles, adverse impacts to the environment would be minimized. Positive impacts from implementing the Proposed Action include fulfilling the BTOP statutory purpose to provide education, awareness, training, access, equipment and support to (i) schools, libraries, medical and healthcare providers, community colleges and other institutions of higher learning, and other community support organizations; (ii) organization and agencies that provide outreach, access equipment, and support services to facilitate greater use of broadband services by vulnerable populations (e.g., low-income, unemployed, aged).

BCI's project will enable the impacted area to overcome geographical distances, empower residents through information access. The proposed infrastructure will allow users to access research, distance learning, video and other tools. The project will provide service needed to meet the requirement of residents, businesses, and public institutions and will empower residents; it will also create a system that can be easily upgraded in the future as needs evolve.

CHAPTER 2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

The identification, consideration, and analysis of alternative are integral to objective decision making and are central to the NEPA process. Four alternatives, including a No Action Alternative, are proposed for evaluation in meeting the purpose and need. Each alternative would implement the project types differently, however all alternatives are proposed as a way to meet the specific needs of the project area. These Alternatives, as well as other alternatives that were considered are discussed below. Refer to Appendices A & C for proposed route maps and representative photographs of the proposed project route.

2.1 No Action Alternative

The No Action Alternative involves not constructing the Van Buren County Fiber Ring, and therefore, no access to high quality broadband service to simulate local economic growth, learning, job creation and the technology necessary to compete in regional and global environments. Needs in this underserved rural area will continue to be unmet and the purpose of this proposed project would not be accomplished.

2.2 Proposed Action - Van Buren County Fiber Ring

The Proposed Action involves the construction of the Van Buren County Fiber Ring along approximately 137.5 miles of roadway and utility ROWs in Van Buren County and parts of Berrien and Allegan Counties. This Proposed Action will help complete regional fiber optic infrastructure that will provide broadband service to meet the needs of the anchor institutions, public safety entities and its residents that will allow for greater opportunities in healthcare, education, and public safety, as well as commercial and social endeavors. The goal is to expand access to broadband services in this rural area that will allow for a variety of interactive two-way broadband services and digital multimedia.

Bloomington Communications, Inc.'s plan is to install cable systems in both rural and urban areas using generally accepted construction practices. The construction consists of burying cable primarily in existing public road right-of-ways; however, some private ROW may be required. The cable typically will be placed in parallel and in proximity to existing cables. All construction will be coordinated with the appropriate local, state, and federal government officials. All construction is required to be accomplished using established industry specifications and to conform to the applicable portions of the National Electrical Safety Code. Typical stream crossings will be accomplished using the directional bore method. Utility construction typically falls under the Nationwide Authorization, 33 CFR, Part 330, Appendix A, B(12). The company understands the conditions of the permit and its construction will meet those requirements.

In the proposed service area, typically the preferred method of outside plant construction is buried because of many factors. Our area can receive a considerable amount of icing during the winter months which can accumulate on aerial cables and trees. This can break the poles and down the fiber lines resulting in service outages. In addition, aerial cable often requires more ongoing maintenance costs due to rodent damage, high profile vehicle damage, and periodic trimming of trees to prevent damage to the fiber. However, in some instances aerial is a better method of construction. In urban areas with asphalt roads meeting up to curbs with concrete sidewalks, buried construction can be very costly. This is especially true in "downtown" areas. During the detailed engineering phase, the prevalence of available power poles and the construction corridors were evaluated to determine the best means of construction. Bloomington Communications determined that some of the routes connecting the Community Anchor Institutions in South Haven would be better served by aerial cable and also identified a short segment in