

Facesheet for Realizing Opportunities with Broadband Infrastructure Networks Grant - 2023
 Agency: Astrea Connect
 Application: Eastern Chippewa County

Eastern Chippewa County

Applicant

FOR OFFICE USE ONLY:

Version # _____

APP # 230161

Applicant Information

- a. Applicant Name CCI Systems, Inc
- b. Does Business as Astrea Connect
- c. Address 105 Kent St
- d. Address 2
- e. City Iron Mountain State MI Zip 49801
- f. Federal ID Number 38-2356585 DUNS Number 102345238 Unique Entity Id.
- g. Agency Type
- Licensed under the Michigan Telecommunications Act (1991 PA 179, MCL484.2101 to 484.2603)
- Franchise holder under the Uniform Video Services Local Franchise Act(2006 PA 480, MCL 484.3301 to 484.3315)
- Broadband Service Provider currently providing service in Michigan
- Public private-partnership between a governmental entity and an internet service provider
- Private, Non-Profit

As an applicant to the ROBIN Program I certify that I have read and understand the ROBIN Program Guidance and any linked or accompanying information in its entirety and understand the program guidelines, restrictions, reporting, compliance, and regulations.

- Agree Disagree

Please provide additional details on how you are eligible for this program

CCI Systems, Inc. d/b/a Astrea Connect is an entity currently providing broadband services in Michigan.

Please provide evidence of eligibility [433__Video Survey Provider 2022.pdf](#)

Are you registered with the Michigan Public Service Commission's Intrastate Telecommunications Service Providers Registry (ITSP)?

- Yes No Unsure

Have you provided broadband availability data to the Federal Communications Commission within the last two years?

- Yes No Unsure

Applicant Identification Numbers: Please provide the following identification numbers for the applicant (if available):

Michigan Tax Identification Number: 38-2356585

Michigan Vendor Identification Number (SIGMA ID): CV0027654

Federal Communications Commission Registration Number (FRN): 0007131121

Service Provider Identification Number (SPIN): 143008419

Project Information

- a. Project Name Eastern Chippewa County
- b. Is implementing agency same As Applicant Yes No
- c. Implementing Agency Name
- d. Project Start Date Sep-01-2023 End Date Dec-31-2026
- e. Amount of Funds Requested \$15,991,465.32 Project Cost \$18,835,647.60

Facesheet for Realizing Opportunities with Broadband Infrastructure Networks Grant - 2023
 Agency: Astrea Connect
 Application: Eastern Chippewa County

FOR OFFICE USE ONLY: Version # _____ APP # 230161

Contacts

a. Application Author

Name Cory Heigl
 Title Vice President
 Mailing Address 105 Kent St
 City Iron Mountain State MI Zip 49801
 Telephone Fax
 E-mail Address

b. Authorized Official

Name Michael Cavins
 Title Financial Officer
 Mailing Address 105 Kent St
 City Iron Mountain State MI Zip 49801
 Telephone Fax
 E-mail Address

c. Financial Officer

Name Jacob Mulaikal
 Title
 Mailing Address 105 Kent St
 City Iron Mountain State MI Zip 49801
 Telephone Fax
 E-mail Address

d. Primary Grant Contact

Name Cory Heigl
 Title Vice President
 Mailing Address 105 Kent St
 City Iron Mountain State MI Zip 49801
 Telephone Fax
 E-mail Address

Project Overview

FOR OFFICE USE ONLY:

Version # _____

APP # 230161

Project Overview

Please provide a Project Summary not exceeding 250 words

This project will bring fiber-to-the-premise services with multi-gigabit capacity to Eastern Chippewa County, which could be considered some of the most remote and unserved areas in Michigan's Upper Peninsula. Upon completion, the project would construct about 200 miles of fiber optic infrastructure bringing future-proof connectivity to nearly 2000 unserved addresses across about 160 square miles. A large portion of the project would uniquely serve two islands: Sugar Island & Neebish Island. The ROBIN grant program, has given hope to the residents and business owners, within the project, to provide the broadband infrastructure needed to promote economic development, educational and healthcare opportunities, and job creation.

Please briefly describe why this project needs funding from the ROBIN Grant Program and why the project could not proceed without this funding. (250 words max.):

Without subsidy through the ROBIN grant program (or a future similar program), most of the project area will continue to be "left behind" in proper broadband connectivity. Most extremely rural areas suffer from a lack of address density per linear network mile, and this project is no different. However, the uniqueness of the two islands, residing within a Great Lakes shipping channel, further adds complexity and increases the lack of feasibility for any hope in private investment. It also must be noted, that much of the area is very rocky, and will further increase the spend to bury fiber optic cables along routes to make these needed connections available. The aging utility pole infrastructure challenges the ability to evade this rock. Without ROBIN, families, business, students, and opportunity are challenged. As we prepare this application, we understand that our Grant to Project costs will score low. This ratio is challenged more by the physical attributes within the project, not due to the inability to risk our matched investment.

Most of the proposed project areas was placed in default within the RDOF Auction 904, which was originally awarded to Space Exploration Technologies Corp. Astrea operates broadband systems in several nearby communities, and we believe we are uniquely positioned with our resources to build and operate the network.

Is the proposed project a last-mile or middle-mile infrastructure proposal as defined in the ROBIN Grant Program Guidance?

- Last-Mile
 Middle-Mile

Project Service Delivery

FOR OFFICE USE ONLY: Version # _____ APP # 230161

Proposed Service Area Information

PLEASE READ THE FOLLOWING CAREFULLY

ENTER INFORMATION IN THIS SECTION ONLY IF YOU SELECTED 'LAST-MILE' AS A PROJECT TYPE

Please provide a brief description of the proposed service area (250 words max.):

The project service area will provide service to 1991 address in eastern Chippewa County, within Pickford and Bruce Townships on the mainland, as well is the island townships of Soo and Sugar Island. The mainland portion will bring service to approximately 992 addresses, with Sugar Island and Neebish Island an additional 999 addresses. Pickford and Bruce Townships have a mix of rural forests and farmland, while Soo and Sugar Island Township are primarily forest and costal waterways. The project impacts two school districts, Sault Ste Marie School District and Pickford Public Schools.

Please upload a PDF overview map of proposed service area

[436_Eastern Chippewa County_1_.pdf](#)

Proposed infrastructure to be deployed including route locations

Please upload a GIS-compatible file(s) of the proposed infrastructure to be deployed including route locations and other supportive infrastructure to be deployed as a result of the grant. This file(s) should contain the actual proposed locations of infrastructure to be deployed including, but not limited to: fiber transport, fiber to the premise, coaxial, or other similar network routes, cabinets, nodes, pedestals, splice enclosures, towers, huts, etc.

Acceptable file types: ESRI Geodatabase (.gdb), ESRI Shapefile (.shp, .shx, .dbf, .sbn or .sbx, .fn or .fbx, .ain or .aih, .atx, .ixs, .mxs, .prj, and .xml), Google Earth files (.kml or .kmz).

Please refer to the Application guidance to view an example of the output from such a GIS-compatible file

Name	Attachment
KMZ of basic routes, service areas, no structures	437_0_Eastern Chippewa County.kmz
PDF File Showing existing Astrea Fiber & KMZ	437_1_Overview of Routes.pdf

Spreadsheet of street addresses

Please upload a spreadsheet of street addresses/locations within the proposed service area. Spreadsheet should include full address string (number, street, city, state, zip), location type (residential, business, institution, other), latitude and longitude (if available), and whether the address is currently unserved at 25/3 Mbps or 100/20 Mbps or unknown.

[278_East Chippewa County Address Submit.xlsx](#)

Locations by Type

Locations Passed: Please indicate the total number of locations by type that will be able to receive improved broadband services as a result of the proposed project:

Type	Locations
Households	1,973
Businesses	15

Community Anchor Institutions	3
Total Locations Passed	1,991

Please list the jurisdictions impacted by the proposed service area:

- City(ies)/Village(s):** None
- Township(s):** Bruce, Pickford, Soo, Sugar Island
- County(ies):**
- Chippewa
- State House District(s):**
- State House District 107
- State Senate District(s):**
- State Senate District 37

Description of the broadband service to be provided

Does the proposed service area include (wholly or partially) a Qualified Opportunity Zone? Yes No

If yes, please list the Census Tract numbers for the impacted Qualified Opportunity Zones

Please provide a brief description of the broadband service to be provided including, but not limited to, the technology to be used, will bandwidth be dedicated or shared, etc. (250 words max.):

This project will deploy fiber-to-the-premise with XGS-PON as the last mile technology. XGS-PON relates to a 10 Gigabit Symmetrical Passive Optical Network. This standard has been widely adopted by most recent FTTx investments to future proof the network for next generation applications and the increased quantity of IP connected devices in a home or business. A Passive Optical Network by definition is a shared bandwidth architecture. In the first few years Astrea will advertise and provide packages of up to 2 Gbps, reserving future packages to be capable of up to 10 Gbps as the need and demand grows. Beyond the speed offering, all customers will receive a managed adaptive Wi-Fi access that can mesh multiple access points at a customer's premise. Astrea customers have access to 24x7x365 support through phone, chat, and email channels. Astrea plans to utilize and grow our regional technician pool to provide daily on-site support to the customer base.

Minimum Mbps

Are you able to provide the minimum 100/100 Mbps required service speed to all locations identified in the proposed service area? Yes No

If No, the ROBIN Program allows for a minimum service speed of 100/20 Mbps in cases of extreme geographical, topographical, or financial impracticability of delivering 100/100 Mbps. Such connections must be scalable to 100/100 Mbps. Applicants must provide substantial evidence as to the impracticability of delivering 100/100 Mbps and the justification for providing a connection speed of 100/20 Mbps instead.

Affordability and Service Limitations

Project Service Delivery for Realizing Opportunities with Broadband Infrastructure Networks Grant - 2023
 Agency: Astrea Connect
 Application: Eastern Chippewa County

Using the table, please indicate the download and upload speeds of the services to be offered in the proposed service area, the non-discounted or rack rate monthly pricing of unbundled internet-only service should be included for each service offered, as well as the monthly data allowance for customers (if applicable). Applicants must certify their commitment to providing the proposed level of service and cost for at least one (1) year after grant closeout. After this period, grantees are expected to maintain pricing and speed levels for the ROBIN project area consistent with those found in the grantee's non-ROBIN service areas elsewhere in the state.

Download Speed (Mbps)	Upload Speed (Mbps)	Monthly Cost \$	Monthly Data Allowance (GB)
150	150	45.00	unlimited
300	300	55.00	unlimited
1,000	1,000	65.00	unlimited

Affidavit of commitment

[442__Affidavit of Offering.pdf](#)

FCC's Affordable Connectivity Program (ACP)

Do you participate in the FCC's Affordable Connectivity Program (ACP)? Yes No

If No, applicant must participate in ACP within 6 months of receiving a ROBIN grant award. Please attach evidence that they are pursuing ACP participation.

Do you provide a low-cost service offering in conjunction with the ACP that provides ACP eligible households with a net \$0 monthly cost of service? Yes No

If yes, please describe the low-cost service offering.

For consumers that are eligible for ACP, Astrea will offer a 100 mbps x 100 mbps product at a \$30.00 monthly price point.

Project Costs and Budget

Project Costs and Budget

Please complete the following table with project cost information.

Total Project Cost:	18,835,647.60
Total Grant Request:	15,991,465.32
Total Match Amount:	2,844,182.28
Total Match Percentage:	15.10

Total matching funds: Please complete the table below summarizing the source, amount, and type of matching funds contributed to the project. Applicants should also indicate if the match is secured or not.

Source	Amount	Type	Secure
CCI Systems, Inc., CCI Systems, Inc.			

Match commitment letters or evidence

Name of Attachment	Match commitment letters or evidence
CCI Systems, Inc. Board Consent to Cash Match	319_0_Robin_Grant_Consent_3.13.23.pdf

If matching funds or in-kind contributions listed above are not yet secured, please describe the process remaining to secure the funds and the anticipated timeline to do so. (250 words max.):

,

Budget Summary for Realizing Opportunities with Broadband Infrastructure Networks Grant - 2023
 Agency: Astrea Connect
 Application: Eastern Chippewa County

FOR OFFICE USE ONLY:		Version # _____		APP # 230161		
	Category	Total	Requested	Cash	Inkind	Narrative
1	Building and Labor					
2	Last Mile Construction Labor					
3	Middle Mile Construction Labor					
4	Last Mile Construction Material					
5	Middle Mile Construction Material					
6	Customer Premise Equipment					
7	Customer Premise Installation					
8	Electronics					
9	Permits					
10	Professional Services and Engineering					
11	Other					
TOTAL EXPENDITURES						

Budget Additional Information

FOR OFFICE USE ONLY: Version # _____ APP # 230161

Budget Narrative

Please provide a brief narrative to accompany your project budget (max 400 words).

CCI Systems, Inc. the parent company to the Astrea brand, is a provider of fulfillment and professional services to broadband industry. CCI is an employee-owned company based in Iron Mountain, Michigan, and employees a staff of nearly 1400 people. CCI is routinely hired by the nations largest telecommunications providers with a multitude of services including; design and engineering, construction, fiber splicing, technical field services, network equipment fulfillment and installation, as well as a variety of other residual services to hundreds of ISPs throughout the nation. Astrea, as a d/b/a, can utilize skill sets throughout the company to assist in project planning and budgeting. Once an Astrea project is committed, CCI's resources can be leverage to ensure projects get built within budget and on the appropriate timeline.

Attach additional information as necessary [449_Detailed Budget 3-9-2023.pdf](#)

Five-year stand-alone project financial plan/forecast.

Please use the table to complete a five-year stand-alone project financial plan/forecast.

Five-Year Stand-Alone Project Financial Plan

Project Name	Year 1	Year 2	Year 3	Year 4	Year 5
Anticipated Revenue					
Anticipated Expenses					
Anticipated Grant Funds					
Cash Flow					
Cummulative Cash Flow					

Please provide a brief narrative to accompany your five-year stand-alone project financial plan/forecast (400 words max.):

Additional forecast information

Project Readiness

FOR OFFICE USE ONLY: Version # _____ APP # 230161

Engineering designs, diagrams, and maps

Budgetary engineering designs, diagrams, and maps that show the proposed project. Design documents must clearly demonstrate the applicant’s complete understanding of the project and ability to provide the proposed solution. This information must be certified by a professional engineer.

Name of Attachment:	Budgetary engineering designs
PDF of Project overview - Sealed PE	353_0_Eastern Chippewa County PE sealed 14MAR2023.pdf
PDF of KMZ files overview - Sealed PE	353_1_Overview of Routes PE sealed 14MAR2023.pdf
PDF of Detailed budget - Sealed PE	353_2_Detailed Budget 3-9-2023 PE sealed 14MAR2023.pdf
PDF of Readiness to Build - Sealed PE	353_3_Budgetary Design Parameters - Astrea PE sealed 14MAR2023.pdf

Please provide a brief statement to accompany your attached engineering designs, diagrams, and maps indicating your readiness to build, manage, and operate the proposed network.

Astrea has deployed FTTx PON and XGS-PON in several projects effectively. Astrea has a total of nearly 5500 addresses with this technology, deployed or under construction, throughout our network.

Today Astrea services over 14,500 subscribers across a variety of distribution architectures, and we service over 2200 residential and business subscribers in rural eastern Upper Michigan, near this proposed project. We operate a system on Mackinac Island, so we have experience with the unique challenges in in an island setting, specific to this region.

This project allows Astrea to scale our operations in the region, which brings efficiencies overall and affords additional staff for all of our activities.

FTTx with XGS-PON architecture is currently the most commonly widely deployed architecture in contemporary new-build distribution networks. This architecture is well established nationally within the RDOF investments and will be the technology of choice for the eventual BEAD funding.

Astrea's connection to CCI Systems, Inc. gives us a unique advantage to scale our investments and deployments. Astrea has access to a variety of resources and skill sets for network build and deployment, that ISPs of our size do not normally have access to.

Evidence of network scalability

Evidence of network scalability

Name of Attachment	Evidence of network scalability
Evidence of Scalability - Sealed PE	357_0_Evidence of Scalability - Astrea PE sealed 14MAR2023.pdf

Please provide a description and evidence that the proposed infrastructure is scalable to meet the anticipated future connectivity demands of the proposed service area. Please indicate the end-user connection speed to which the proposed network is designed to scale. This information must be certified by the equipment manufacturer or a professional engineer. (250 words max.):

The project is being designed with additional capacity to allow for scalability. There are two parts to our efforts in scalability, speed and additional users.

From a speed perspective, the network will be deployed as XGS-PON. This architecture allows the user speeds to scale over time up to 10 Gbps. (10,000 Mbps). Initially we will offer 1 Gbps, however as the demand increases beyond 1 Gbps, we will simply offer various packages up to 10 Gbps.

From an additional user perspective, we design the network to have excess fiber strands throughout the entire network to provide scalability. In time, we hope than new houses and businesses will be built, and we ensure that there is enough fiber optic strands to add new users (addresses). In our concept design, the lowest distribution fiber that will be placed is equivalent to a 48-count cable. (48 fiber strands in the sheath). The design intention is that there will be a minimum of 6 unused strands everywhere, and likely 12 strands available in most places.

Project Schedule

28. Please use the table below to complete a project schedule outlining individual tasks and their timing by quarter and year. All projects must be complete by December 31, 2026. (If you need to add additional lines, click on 'Save' and the system will add an additional five lines each time.)

Task	2023		2024		2025		2026							
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Engineering and Design	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permitting (all types)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material Procurement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiber Placement	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiber Splicing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Network Cabinets and Structures	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drop Placement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customer Installs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Digital Literacy Events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Anticipated completion date

Please indicate the anticipated date upon which service to the last location in the proposed project area will be made available. 06/26/2026

Please list any factors that would change or delay the proposed schedule.

Unforeseen supply chain disruptions, and extended Winter weather. Being that the projects are in the northern great lakes, unexpected conditions could arrive earlier in a given season, or hold out later at the end of season.

Project Readiness for Realizing Opportunities with Broadband Infrastructure Networks Grant - 2023
 Agency: Astrea Connect
 Application: Eastern Chippewa County

This is amplified as a significant portion of the work needs to be done on two islands, where ferry access can be disrupted.

Have all the required local/city/county/state approvals and/or permits necessary for this project to proceed been obtained? Yes No

If No, what remains to be done and what is required for completing the process of obtaining approvals? Include any permitting timeline in the project schedule.

The only local permits will be required by Chippewa County, which the county Administrator will ensure our permits receive priority.

Will this project require state or federal environmental review, approval, or permits? Yes No Unsure

If Yes, what remains to be done and what is required for completing the process of obtaining approvals? Include any permitting timeline in the project schedule.

We've retained Stantec, a reputable firm, which has a focus on these of permits for utility construction within road and utility rights-of-ways. If awarded, the Stantec Team will immediately utilize our budgetary design to identify areas of concern. Once areas are identified, our formal design team will take into consideration any disturbance will be presented to the proper agency for permit review and compliance activities.

Will this project require state or federal historic, architectural, or archeological review, approval, or permits? Yes No Unsure

If Yes, what remains to be done and what is required for completing the process of obtaining approvals? Include any permitting timeline in the project schedule.

Again, we've retained Stantec, a reputable firm, which has a focus on these of permits for utility construction within road and utility rights-of-ways. If awarded, the Stantec Team will immediately utilize our budgetary design to identify areas of concern. Once areas are identified, our formal design team will take into consideration any disturbance will be presented to the proper agency for permit review and compliance activities.

Project Readiness

Additional evidence of project readiness

Name of Attachment:	Evidence of project readiness
Engineering, Design, Permitting Commitment - CCI Systems, Inc.	390_0_Astrea TES Support.pdf

Please provide any additional evidence of your project's readiness. This evidence can include, but is not limited to, letters of intent, memorandums of understanding, land/tower lease agreements, right-of-way agreements, permits, etc. Provide a short narrative to accompany this additional evidence.

If awarded, Astrea work with the CCI Systems, Inc (parent company) engineering group, to execute on final design. This will produce the proper documentation to have Bill of Material (BOM) quality design, as well as permit quality information to secure all necessary permits for cable and structure placement.

Astrea is finishing another large FTTH project in July 2023, so the assigned project team, and overall leadership, are committed to focus on this project. Any other investments will be tabled to focus on this project's resources and success. The project team will immediately order standard materials in bulk, such as conduit, fiber, hand holes, splice enclosures, and major network electronics. The project team will also secure staging areas for construction equipment and material storage in several locations throughout the project's footprint.

Astrea leadership will provide training to all resource teams, on the expectations of the project, including specific compliance aspects (i.e. prevailing wage reporting) as required by funding mechanism.

Once BOM is created, the project team will order the remainder of the material, including specific materials and any additional quantities of the bulk materials. The project permitting cadence, will focus on immediate customer impact, in that we will execute on permits that can be returned quickly and focus on building the network in stages to make service available to some customers as quickly as possible, likely beating the schedule for first customer availability.

Applicant Capacity

FOR OFFICE USE ONLY: Version # _____ APP # 230161

Brief history of your organization

Please provide a brief history of your organization including experience relevant to the proposed project and your technical, financial, and managerial capabilities to complete the project within the designated project period. (250 words max.):

CCI Systems (d.b.a. Astrea Connect) provides communication services in over 65 different communities in Michigan and Wisconsin. We operate nearly 1500 miles of fiber backbone in these areas and have an additional 850 miles of FTTH or coaxial distribution network. Today, Astrea Connect serves approximately 14,500 homes and business with one or more products. CCI Systems has been in business for over 65 years. CCI's business unit "Astrea" started in 2007. CCI is 100% employee owned and is one of Upper Michigan's largest employers, with about 400 Michigan based staff, and nearly 1400 employees overall. CCI provides goods and services to hundreds of ISPs throughout the country. With a strong balance sheet, and risk-adverse ownership structure, CCI has access to sizable investment capital to fulfill growth throughout its portfolio. CCI has been able to routinely invest in the Astrea network each year to achieve exceptional growth. The Astrea team manages multi-million-dollar expansion projects each year. Astrea's scale is accomplished by leveraging the CCI "mother ship". CCI's business activities helping communication companies, nationally, from some of the largest ISPs to the small and emerging ISPs. CCI designs, builds, and helps them continually enhance their networks.

Organization Chart & Resumes

Applicant organizational chart

Name of Attachment	Organizational chart
Astrea Org Chart	329_0_Astrea FYE2024 Org Chart.pdf

Resumes of key officers, management personnel, and proposed project management team

Personnel Name	Resume
John Jamar - CEO	332_0_John Jamar_March 2023.pdf
Jacob Mulaikal - CFO	332_1_Jacob Mulaikal_March 2023.pdf
Cory Heigl - VP and GM of Astrea	332_2_R Cory Heigl_March 2023.pdf
Brad Weber - Director of Engineering - Astrea	332_3_Brad Weber_March 2023.pdf
Nick Cutler - Sr. Director of Technical Engineering Services - CCI	332_4_Nick Cutler_March 2023.pdf
Andy Heigl - Construction Manager - Astrea	332_5_Andy Heigl_March 2023.pdf

Audited Financial Statements

Three years of audited financial statements

Attachment Name	Audited Financial Statements
Audited Financials FYE2022	336_0_1.1.1 CCI Systems Inc AUD 4-30-22- Final.pdf
Audited Financials FYE2021	336_1_1.1.1 CCI Systems Inc AUD 4-30-21 - Final.pdf
Audited Financials FYE2020	336_2_1.1.1 CCI Systems Inc AUD 4-30-20 - Final.pdf

Please provide a brief statement to accompany your attached audited financial statements and documentation.

CCI Systems, Inc. is 100% employee owned. CCI is incorporated in the State of Michigan and has been in existence since 1965. Its balance sheet is very strong and as of April 30, 2022, its Total Assets were \$ 128 million with an Equity base of \$ 49.4 million. Its cashflows are very strong and as of March 10, 2023, the cash on hand was \$ 13.8 million.

Partners, subcontractors, or vendors associated with the project's deliverables

Describe any partners, subcontractors, or vendors associated with the project's deliverables, including but not limited to adoption, deployment, and service delivery. Describe each party's role in the project. This should include a discussion of whether and to what extent the applicant, as well as its anticipated partners, subcontractors, or vendors are organizations incorporated, headquartered, or with a principal place of business in Michigan.

CCI Systems, Inc. has internal resources and a vast catalog of sub-contractor resources. The largest expense will be of course the fiber optic installation, labor and materials. For projects in Upper Michigan, CCI/Astrea uses 3 different Michigan based companies for these types of deployments, when not using internal crews.

Fiber Placement Contractors – Last mile Labor

Great Lakes Directional Drilling, Inc

Principal Address: 9983 Garner Lane, Freeland, MI 48623

Nine Zero Six Communications, LLC

Principal Address: 13751 State Highway M38, **Baraga**, MI 49908

Fulfillment Partner – Last Mile Materials

Millennium Technology Partners

Michigan Distribution Address: 10825 Bennet Dr., Morrice MI, 48857

Principal Address: 2121 Hobbs Dr., Delevan WI 53115

CCI Systems, Inc. will provide the Design and Engineering, Fiber Splicing Labor, and network equipment fulfillment. **Astrea** Staff will Project Manage and provide the network equipment installation.

Safety and training standards

Describe the safety and training standards in place for your employees, including professional certification, licensure, and/or robust in-house training opportunities.

We are dedicated to Safety and engage with employees, supervisors, and managers to measure risks to continuously improve our techniques, effectiveness, and knowledge. We comply with all Federal & State OSHA regulations starting with training that will include, but limited to OSHA standards, risk assessments, and trainings outlined in our Safety Manual. Weekly trainings (Tool Box talks) are conducted and tracked via learning management systems, monthly group trainings, and yearly trainings and/or retraining. Site safety visits are conducted monthly and more often if there are safety violations found that require retraining in any affected area.

We are committed to providing employees with a safe work environment and work hard to live up to our “zero accident philosophy” which emphasizes safe and efficient work, protection of the environment, and the safety and welfare of our employees, the public, and the communities in which we serve. As part of this commitment, we do not hesitate to impose discipline when violations of the Company’s safety rules are discovered. This philosophy along with our robust training programs, we continuously see low numbers in safety measurements such as EMR, Incident Ratings, and Lost Time Ratings over the last three years.

With the commitment to Safety, our Safety Manager has the following trainings/Certifications:

- Certified Workers Compensation Professional (CWCP)
- OSHA 510 Construction
- OSHA 500 Construction
- OSHA Authorized Construction Trainer

Violations of federal or state labor and employment laws

Have there been any recent violations of federal or state labor and employment laws by your organization? Yes No Unsure

If Yes, please describe in detail.

Labor standards

Does your company incorporate strong labor standards, including project labor agreements and community benefits agreements that offer wages at or above the prevailing rate? Yes No

If Yes, please describe.

Astrea and parent company CCI Systems employ over 1400 people across multiple lines of business related to Broadband design, construction, and operations of completed broadband systems. On top of our ability to self-perform many aspects of projects of this size, we have numerous subcontractor partners that we have contracted year over year and are currently under master agreements.

Our current internal workforce is setup to be adaptable to meet not only market standards for labor agreements, pay and benefits but also prevailing wage and benefits specifications where and when needed.

Our subcontractor agreements allow us to work with our partners to ensure that they also can meet prevailing wage requirements where and when needed. We have many years of experience and success stories where we have done this across multiple states at very large scale.

Hiring Policy

For this project, will additional labor force needs be met by hiring staff directly with your organization or contracted through another entity?

- Directly with company
- Contracted through another agency

If direct hire, please estimate the total number of new, directly hired staff needed to complete this project. 8

If this project will be completed using contracted labor, describe your policies and practices that ensure contractors and subcontractors meet high labor standards.

CCI Systems, Inc. has a rigorous onboarding policy. First, each contractor must enter a mutual NDA (non-disclosure agreement). This protects both companies and their respective agents, employees, and customers to continue the on-boarding process. CCI then executes a MSA (Master Service agreement) to ensure that each company understands the expectations in how to perform business together. The MSA describes safety standards, insurance requirements, escalations, and processes for standard agreements, as well as other typical relational aspects. Then, for each project, an addendum is created, specific to the Project, which outlays the details of specific pricing, standards/specifications, permitting, specific insurance requirements, licenses, and payroll requirements.

Prioritization efforts to hire local workers

Describe any prioritization efforts to hire local workers and/or workers from historically disadvantaged communities for this project.

Astrea has active networks and subscribers near this project. We currently employ about 9 people who live and work in the project vicinity, as we operate nearby networks. With this expansion, we anticipate hiring 2 additional permanent technicians. During the project, we or our contractors, will seek out additional employees to assist in building the network. The eastern upper peninsula has a great swing in unemployment with the tourism season, our employees are not affected by this economic swing. Furthermore, we intend to have our recruiters work directly with the local Indeginous community to ensure that their membership is aware of any and all employment opportunities that this project brings to the region, both short and long term.

Community and Economic Impact

FOR OFFICE USE ONLY:

Version # _____

APP # 230161

Community Support for this project

Demonstration of interest/impact/support from communities (If you need to upload additional support letters, click on 'Save' and the system will add an additional five lines.)

Name of Community / Organization	Support Letters
Eastern UP Regional Planning and Development Commission - letter of support	414_0_EUPRPDC - Astrea ROBIN LOS 2023_03_08.pdf
Eastern UP MiSTEM Region - letter of support	414_1_EUPSTEM Region ROBIN grant LOS.pdf
Sault Area Public Schools - letter of support	414_2_Sault Area Public Schools Astrea ROBIN Grant Ltr.pdf
EUPRPDC Comprehensive Economic Development Plan - evidence	414_3_CEDS_EUP2020Update.pdf
Cloverland Electrical Coop - Letter of Support	414_4_Letter of Support from Cloverland Electric Cooperative Astrea.pdf
EUPISD - Letter of Support	414_5_EUPISD - Letter of Support- Astrea ROBIN.pdf
EUPConnect Collaborative	414_6_EUPConnect Collaborative - LOS Astrea ROBIN.pdf
Center for Change - Support Letter	414_7_Center for Change_2023 ROBIN Funding Support Letter Astrea.pdf

Please provide a description of the community support for this project to accompany relevant attachments.

Community support can be expressed through public-private partnerships, letters of support, memorandums of understanding, community broadband plans, or other relevant and appropriate documents.

In addition to the uploaded documents. Please review the EUPConnect Collaborative website.

<https://www.eupschools.org/domain/1239>

The published and web-based overview of Broadband planning, lead by the EUPISD, in support of broadband planning and access. This application and project align perfectly with the vision.

Community Interest

Demonstration of customer interest

Name of Attachment	Customer Interest
Customer Interest Letter - Coneset	394_0_Community Member - Coneset LOS Astrea ROBIN.pdf
Customer Interest Letter - Gillhooley - Sugar Island	394_1_Community Member - Gillhooley LOS Astrea ROBIN.pdf

Please provide a brief statement to accompany the demonstration of customer interest you have attached to this application. This description should include the method used for gauging customer interest and the results.

Though we did not solicit letters from potential customer to support the project, the data within the EUPISD "EUPconnect" data and planning, coupled with the EUP 2020-2024 Comprehensive Economic Development Strategy, provides a myriad of survey data and local leadership's focus on enhancing Broadband access in Chippewa County and the overall region. These documents are referred to elsewhere in the application. Using the Sandborn map, the National Broadband map, and the implied definitions of unserved, it is evident that the project's footprint is severely unserved.

Community Anchor Institutions (CAI) served

Please list the specific community anchor institutions (CAIs) to be served by the proposed project. Attach evidence of support for the project from impacted CAIs (if applicable). **(If you need to upload additional support letters, click on 'Save' and the system will add an additional five lines.)**

CAI Name	Address	Type of CAI	Letter of Support
SUGAR ISLAND AMBULANCE CORPORATION / SUGAR ISLAND VOLUNTEER FIRE DEPARTMENT	6401 E. 1 1/2 Mile Rd. Sault Ste. Marie, MI 49783	Other (Public Safety)	458_0_Sugar Island Township - Astrea ROBIN LOS.pdf
BRUCE TOWNSHIP VOLUNTEER FIRE DEPARTMENT	3154 East 12 Mile Road, Dafter, MI 49724	Other (Public Safety)	458_1_Bruce Township - Astrea ROBIN Grant Letter Support.pdf
NEEBISH ISLAND VOLUNTEER FIRE DEPARTMENT	10923 17 Mile Road, Barbeau MI 49710	Other (Public Safety)	

SPIN Information

Evidence of application for a SPIN (if applicable) **If the proposed project includes connections to schools or libraries, please ensure you have entered your SPIN at the beginning of this application. For applicants without a SPIN please provide evidence of your application for a SPIN.**

Name of Evidence	Evidence of Application for SPIN

If the proposed project includes connections to schools or libraries, please provide your SPIN or evidence of application for a SPIN from the FCC Universal Service Administrative Company (USAC) and demonstration of your knowledge of E-rate and working with the FCC/USAC.

Need for improved broadband service for businesses

Evidence of interest, impact, or support from businesses. **(If you need to upload additional Evidence of Interest, click on 'Save' and the system will add an additional five lines.)**

Name of Attachment	Evidence of interest
Letter of Support Cloverland Electric Coop	398_0_Letter of Support from Cloverland Electric Cooperative Astrea.pdf
Letter of Support- EUPRP - remote workforce	398_1_ASTREA-customer-LOS-2023-

	03-14.pdf
--	---------------------------

Please provide a brief description of the businesses needing improved broadband service in the proposed project area and the level of improvement needed. Attach statements or evidence regarding the benefits from the proposed connectivity solution and how it will impact those businesses.

Though we did not solicit letters from potential business customers to support the project, the data within the EUPISD "EUPconnect" data and planning, coupled with the EUP 2020-2024 Comprehensive Economic Development Strategy, provides a myriad of survey data and local leadership's focus on enhancing Broadband access in Chippewa County and the overall region. These documents are referred to elsewhere in the application. Using the Sandborn map, the National Broadband map, and the implied definitions of unserved, it is evident that the project's footprint is severely unserved. Non-traditional business should include vacation rentals on Sugar and Neebish Islands, as well as the costal area on the mainland portion of the project. With tourism being important to the local economy, broadband connections at established rental properties is important to the owners and those seeking to enjoy vacationing in the region.

A unique attribute to this project, that needs additional exploration, is that the area is considered an international border and major maritime shipping corridor. Broadband Leaders in the region have had initial discussions with US Boarder Patrol and the Army Corp of Engineers, who could in the future leverage broadband connectivity and specific technologies to monitor these unique geographies to fulfill their obligations to protect their assigned situations. Astrea cannot claim evidence of this type of collaboration, but building the infrastructure could allow for a unique use-case for national security.

Direct job creation

Evidence of job creation

[459__CEDS_EUP2020Update.pdf](#)

Describe and account for any direct job creation in the proposed service area related to this project, if funded. Provide supplemental evidence if available. Job creation here means those jobs created in the community as a result of new internet connectivity being deployed, not any jobs created to deploy the proposed network.

Astrea has 8 current employees near this applications footprint. Five of those employees are work-from-home (WFH) full time positions, that assist Astrea's business daily. Three of those employees work in the field full time taking care of the physical network and the Astrea customers. Astrea will hire and train 2 more full time employees to assist in long-term operations of this new network.

As an example. CCI Systems (parent company) has about 1000 US-based employees, about 400 of them are based in Michigan today. About 85% of the CCI workforce employed, is in a WFH environment. Work-from-home requires proper broadband speeds to allow a remote worker to be productive employee. CCI/Astrea continues to recruit and train employees throughout the UP of Michigan. All investments into Broadband give residents opportunities to WFH for thousands of companies like CCI/Astrea.

Attached is the EUP's 2020-2024 Comprehensive Economic Development Strategy, the word Broadband is mentioned 36 times within the report. In fact, the top 3 key findings/needs (public input), seen on page 25, are Increased access to Broadband, Workforce training, and job creation. This well thought out plan with a variety of stakeholders deduced that all these things really go hand in hand. The ROBIN program and the Astrea application, perfectly align to the aforementioned strategy.

The unique island communities of Nebbish and Sugar Islands, will be unlikely candidates for traditional industry. Socioeconomic growth for residents on these islands will require the ability to telecommute. For those that have secondary homes, connectivity will drive them to stay longer or even permanently, spending more locally, further increasing the demand for job creation.

Training and Awareness

FOR OFFICE USE ONLY:

Version # _____

APP # 230161

Proposed digital literacy training events, materials

Please describe any proposed digital literacy training events, materials, and/or resources that will be provided to residents or businesses impacted by the proposed connectivity. Include the number and type of events, including commitments from any partners included in the digital literacy training and the anticipated outcomes from related activities. The description must provide clear detail and contain measurable metrics for the proposed programs or partnerships.

Astrea plans to hold 6 events, as seen in our project schedule, that will encompass three main topics. Access, Affordability and Adoption. These events will be scheduled to be held at town halls and schools, throughout the project footprint. They will be scheduled well in advance with our project partners and advertised through intimate engagement channels.

Access will describe elements of who/where a connection can be made with this new network. We will talk about the geography, the target addresses, the time line, and the process of getting connected.

Affordability will describe elements of pricing and products. Astrea staff will help consumers discover the best product/price arrangement that best fits their needs. This will also include the ACP program training and offer assistance/training for consumers who may qualify.

Adoption will provide training towards the elements of digital literacy. Astrea works with Microsoft and is a partner in their Airband initiative. As part of this partnership, Astrea and Microsoft have created a library of trainings for a variety of digital literacy levels. Our intention is to create, with the advisement of community stakeholders (within the project area), to customize the in-person training. Astrea staff and other members of the stakeholder group will provide the staff for instruction for these training events. Training will focus on elements of safely and securely use of various applications surrounding commerce, social media, health care, banking, education, and a variety of aspects surrounding digital literacy.

We expect more than 20 individual consumers to join these events. If participation is less than that, we will work with the community stakeholders to assess the approach to increase participation. We will use surveys to measure the effectiveness of our approach after each session, and make necessary changes to the content and/or delivery.

Lastly, we have a desire to engage with the two local school districts and the EUPISD to find creative ways to offer apprenticeship programs in the realm of IT and Security. Initial conversations have begun with the Technology Director at the EUPISD.

Attached as evidence is a screen-print, of our web page, that shows content and cirrucla on a variety of technology topic. I urge a reviewer of our application to go to this landing page, where Astrea and Microsoft have partnered to make this content available. The screen print is a bit ugly, but the we page shows evidence of how we promote digital literacy today.

<https://astreaconnect.com/digital-literacy/>

Please upload e evidence of training partnership, materials, etc.

[508_Digital Literacy - Astrea.pdf](#)

Materials and Method(s) to be used

Please describe the materials and method(s) to be used for providing residents and businesses with information promoting the use of an internet connection for improving quality of life, access to resources, economic opportunity, etc., in the proposed service area. Partnerships with local CAIs that build awareness for enriching online opportunities for residents and businesses are highly encouraged.

Examples of these opportunities include, but are not limited to, telehealth applications, access to government services, e-learning, job and career readiness programs, public safety information, cybersecurity training, etc. This description must provide clear detail and contain measurable metrics.

In conjunction with the aforementioned digital literacy events, Astrea will also provide similar content directly to consumers within the project footprint, as well as other interested individuals in the region. We will work with our partners, primarily through direct mail, as well as working with the school districts, regional healthcare, and other community organizations.

One major initiative that we envision is the duplication of an existing program in which Guide Star, another CCI Systems subsidiary, recently launched in collaboration with Dickinson-Iron ISD, Bay College, NMU's Cybersecurity Institute and Michigan Works. The initiative is a Registered Apprenticeship administered through the Department of Labor with a focus on cybersecurity.

We have engaged with the EUPISD (Eastern Upper Peninsula ISD) Technology director to engage stakeholders and leaders, local to the project, with hopes working with the two local school districts and the EUPISD to find creative ways to offer a similar apprenticeship program. We believe that we can likely gain 10 students to participate in the program.

Evidence of awareness activities

[511_2023 GuideStar-UPMW Apprenticeship Presentation.pdf](#)

Commitment to improving the adoption rate of broadband services

Describe how the project commits to improving the adoption rate of broadband services, including, but not limited to, special service rates, internet-enabled devices that meet the needs of the user, and digital skills training.

To reinforce: the project has a high focus on **access**, or making services available to the project vicinity. However, and more import, are the aspects of affordability and adoption.

Affordability will describe elements of pricing and products. Astrea staff will help consumers discover the best product/price arrangement that best fits their needs. This will also include the ACP program training and offer assistance/training for consumers who may qualify. We have committed to pricing that will, in conjunction with the ACP, have a special rate of services, as shown earlier in the application.

Adoption will provide continual training towards the elements of digital literacy. **Astrea** works with Microsoft and is a partner int their Airband initiative. As part of this partnership, Astrea and Microsoft have created a library of trainings for a variety of digital literacy levels. Our intention is to create, with the advisement of community stakeholders (within the project area), to customize the training and make it available as a web-based program, that consumers are free to access at any time. . Training will focus on elements of safely and securely use of various applications surrounding commerce, social media, healthcare, banking, education, and a variety of aspects surrounding digital literacy.

Another program Astrea has promoted is *PCs for People*, a certified **Microsoft** refurbisher of personal computing devices. PC's for People focuses on helping those in need, get access to these devices. Astrea leverages this partnership with our efforts surrounding ACP.

Promotion of customer take rate

Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate.

Adoption is crucial to this investment. Astrea has a robust marketing and sales team with a variety of tactics to reach consumers. First of all, advertising. Advertising builds awareness towards the project and the new availability. Upon award, all addresses will be notified of the project and the ROBIN funding program that enabled the project. We will provide quarterly updates through mail, email, and other outward channels. There will be continual updates on our website with a specific landing page for the project. Construction crews and other boots-on-the-ground employees, will carry handout information to reinforce awareness and educate those who are interested. To focus on timing of service availability, Astrea gain will use multiple channels to build awareness. Efforts to send direct mail, local sponsorships, on-line advertising placements, community stakeholder awareness, all the way to in-person door-to-door, letting consumers know that they can now be connected. Based on our experience with similar, rural networks, we believe with 4 years, Astrea can gain nearly a 70% take rate.