



BROADBAND PROJECT EXECUTIVE SUMMARY

Chilton County, Alabama

May 2021

Mission:

Determine the feasibility of and develop a plan to provide broadband internet service to as many citizens of Chilton County as possible.

Feasibility Study – Phase 1

Community Broadband Survey data was given to Sain Associates, and they created a Broadband Feasibility Study.

Objectives of the Study:

1. Define clear broadband coverage goals and benchmarks.
2. Document existing broadband infrastructure and coverage areas.
3. Develop a plan for addressing gaps in broadband service.
4. Develop short and long-term recommendations.
5. Compile information needed to apply for grant and/or other funding.

Broadband Feasibility Study Chilton County, Alabama

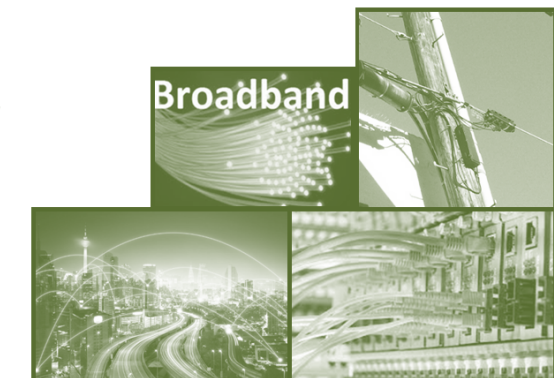
PREPARED FOR: Chilton County

PREPARED BY: Sain Associates, Inc.
Sain Project #: 20-0101

February 11, 2021

A Cooperative Project by:

Chilton County Commission
Chilton County Industrial Development
Authority
Chilton County Board of Education
City of Clanton
City of Jemison
Town of Maplesville
Town of Thorsby
Chilton County Emergency Management
Agency
Chilton County Department of Human Re-
sources
Chilton County Chamber of Commerce



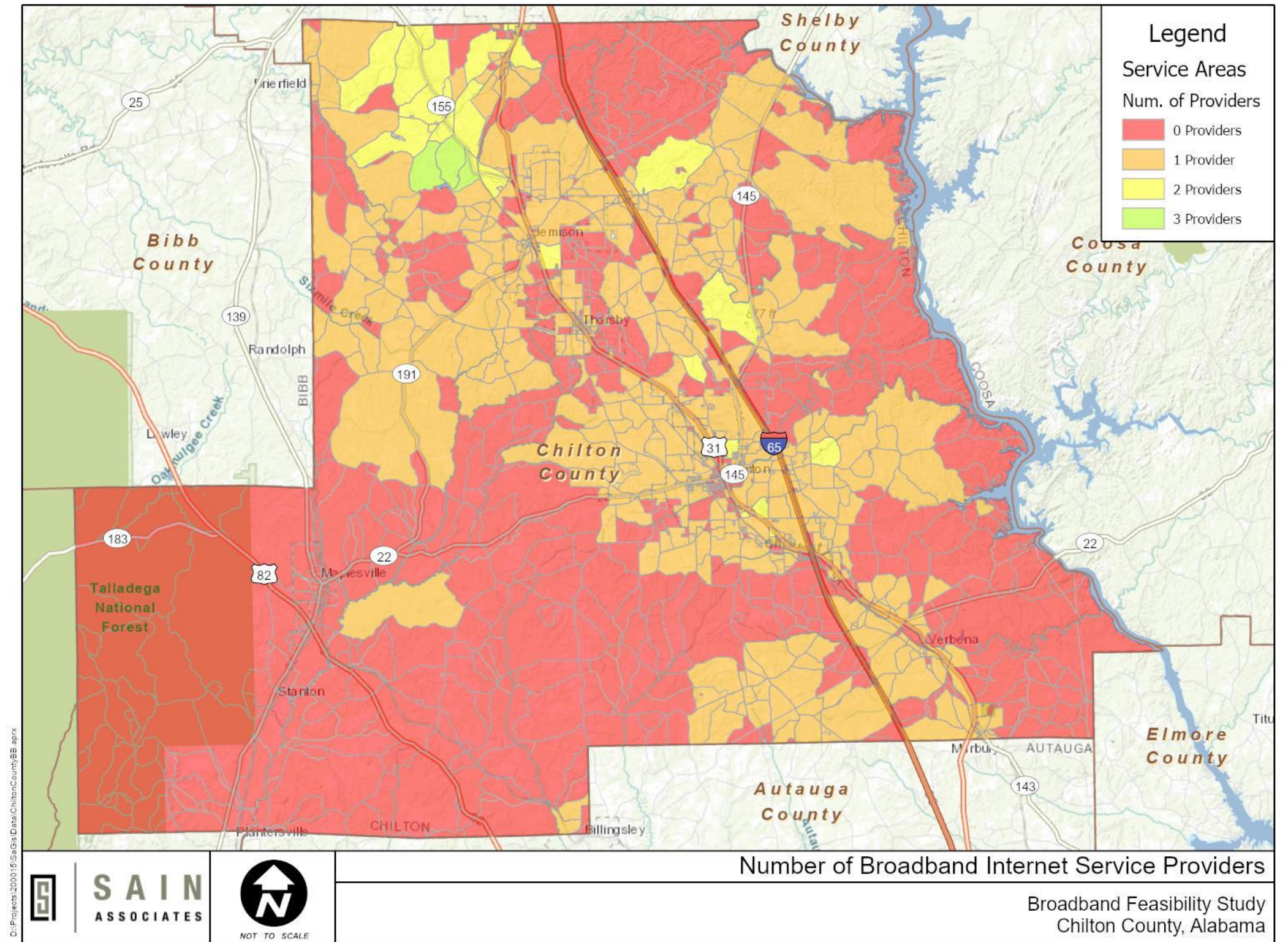
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Broadband Goals

1. Evaluate and understand existing broadband infrastructure condition
2. Evaluate public opinion of existing broadband services and interest in expanding capabilities
3. Make at least one (1) broadband internet service provider available to 67% of the County
4. Make at least two (2) broadband internet service providers available to 50% of the County
5. Create competition amongst internet providers that benefit customers with better service and lower prices

Existing Conditions

1. Unserved area of the County (0 Broadband Providers) = 61.3%
2. Underserved area of the County (1 Broadband Provider) = 33.6%
3. Uninhabited property in the County = 41.8%



Community Broadband Survey

- Survey asked about the following:
 - Address
 - Level of Service Feedback
 - Internet Speed Test for Each Location
 - Broadband Availability
- In addition to the survey, we obtained GIS data from the revenue commissioner's office and the Board of Education.

Community Broadband Survey – Elmore County, Alabama

This survey should take no more than 3-5 minutes to complete...

The Commission of Elmore County requests your assistance to gain a better understanding of broadband (high-speed internet) needs and opportunities for business, education, health and safety, and private residential uses.

Your responses will assist in the following ways:

- Establish geographical areas with the greatest need for broadband expansion;
- Assist in identifying and prioritizing investment in infrastructure;
- Support funding requests and grant proposals;
- Inform program development to enhance adoption of broadband.

Your input is appreciated, and will be used solely for the identified purposes.

DEFINITION OF BROADBAND
For the purposes of this survey, Broadband is defined as 10 Mbps or greater download speeds and 1 Mbps or greater upload speeds, as defined by the Alabama Broadband Accessibility Act minimum service threshold.

A. ELMORE COUNTY BROADBAND AVAILABILITY SURVEY

Elmore County is conducting outreach to the public throughout the County, related to homes and businesses, to help inform and complete our local broadband assessment.

***1. Please provide information on the BUSINESS or RESIDENTIAL location you are reporting. (Physical address of your internet service.)**

☐ Business
☐ Residential

Name of Company or Resident (Optional)

Address (Required)

Address 2 (As applicable)

City/Town (Required)

ZIP/Postal Code (Required)

Email Address (Optional)

Phone Number (Optional)

2. Would you be willing to pay \$59.99 per month for high speed (broadband) internet service?

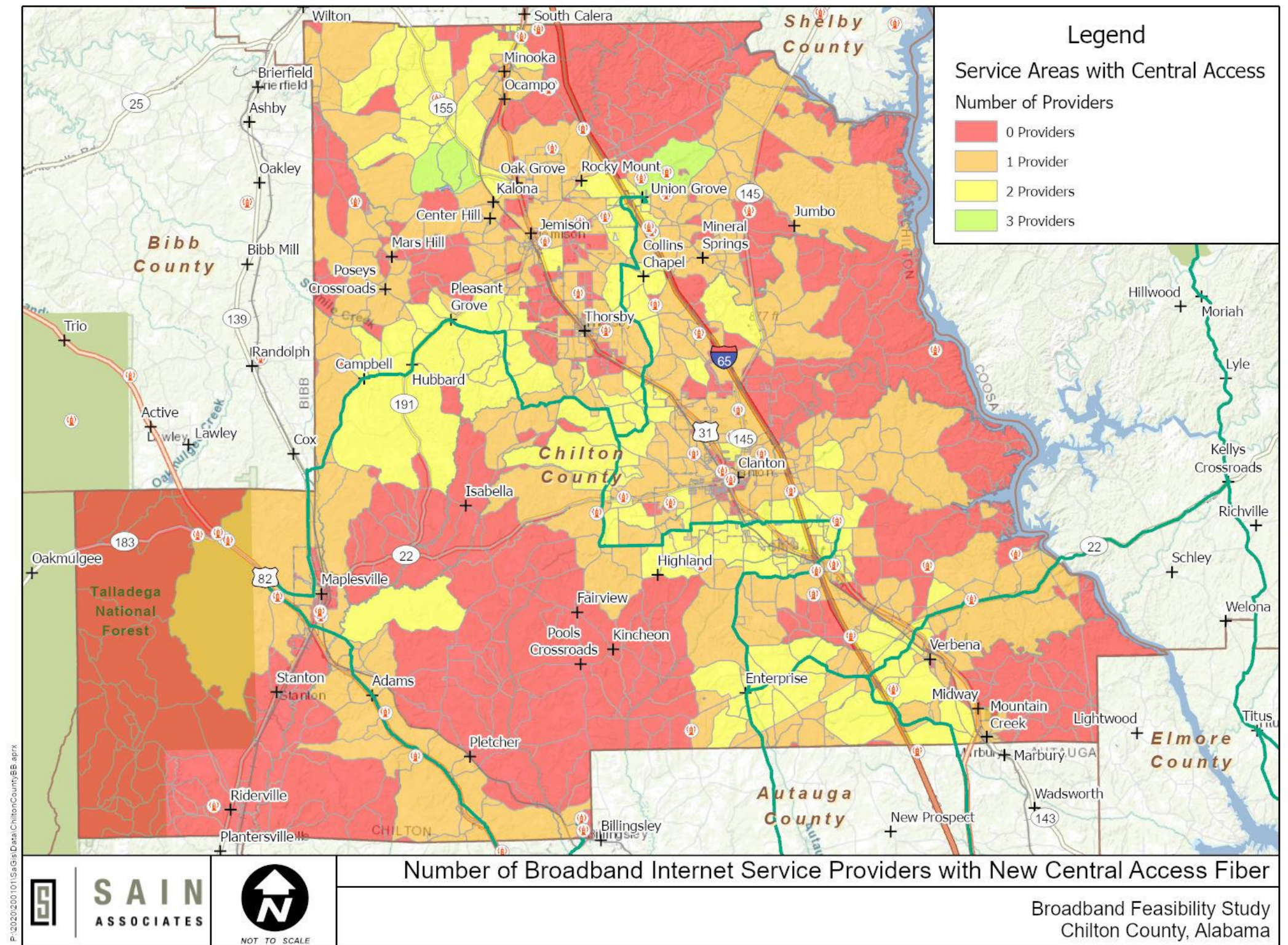
☐ Yes
☐ No

3. Do you Rent or Own

☐ Rent
☐ Own

Major Interim Update

1. Since the start of the project, Central Access has activated its new Fiber ring
2. Updated statistics
 - Unserved area of the County (0 Broadband Providers) = 44.6%
 - Underserved area of the County (1 Broadband Provider) = 37.5%
3. A 16.7% decrease in unserved areas



Project Analysis – Phase 2

Objectives of the Analysis:

1. Identify areas to be evaluated and potential customers
2. Develop parameters for evaluating projects
3. Define initial list of projects for preliminary study
4. Use scoring method to narrow list of projects to ten (10)
5. Develop budgetary cost estimates
6. Develop proposed implementation plan

Broadband Project Analysis Chilton County, Alabama

PREPARED FOR: Chilton County

PREPARED BY: Sain Associates, Inc.
Sain Project #: 20-0101

March 29, 2021

A Cooperative Project by:

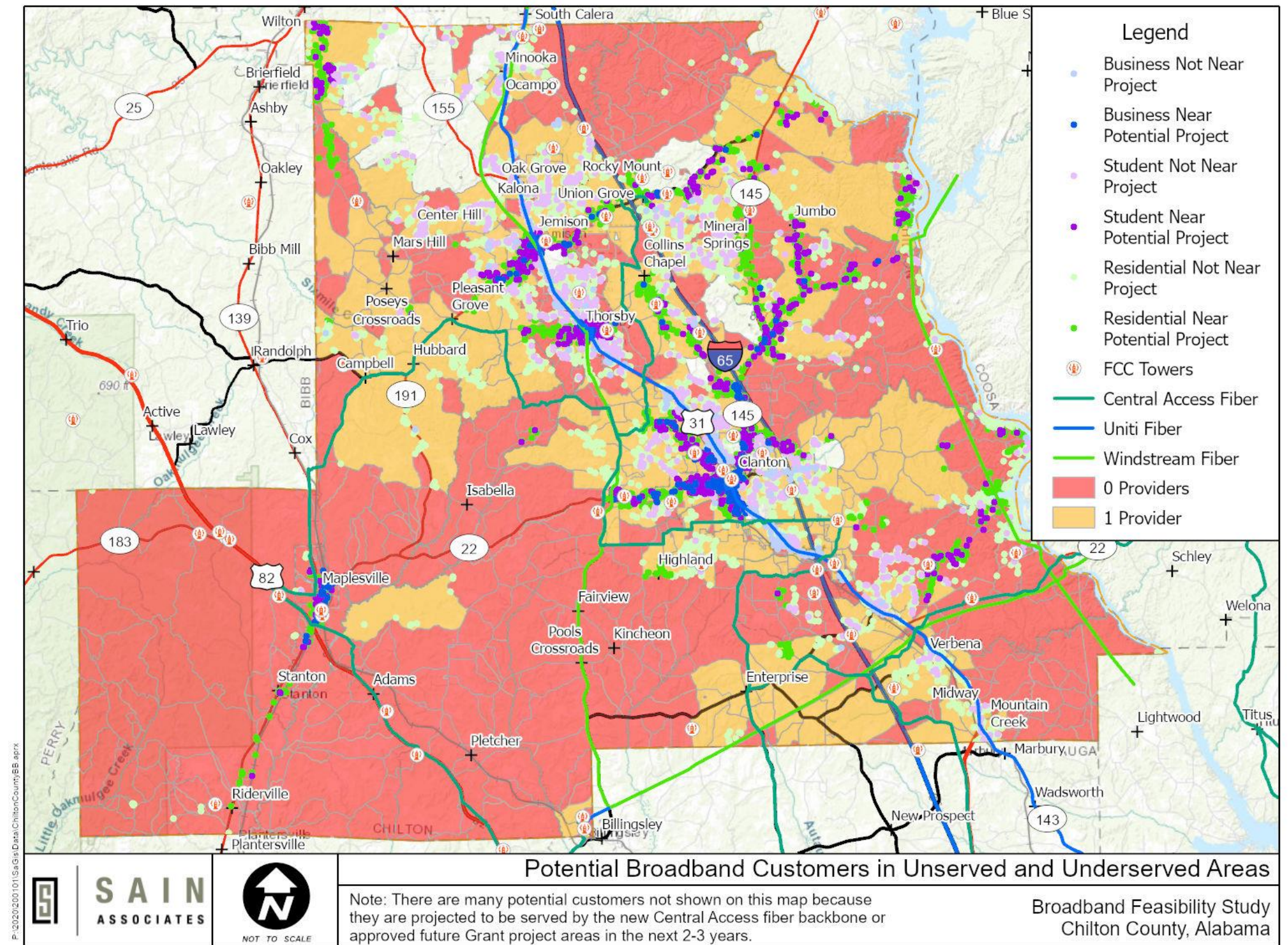
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Chilton County Chamber of Commerce



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Evaluation of Potential Customers

1. Potential customers in unserved and underserved areas
2. Excluded potential customers within 2,000' of new Central Access Fiber backbone
3. Excluded potential customers in areas covered by approved broadband grants



Evaluation Parameters

Project No	Project Name	Fiber Source	Project Dependency Level	All Potential New Customers	Res/Bus	Students in Proposed Service Area	Unserved Area Mitigated (sq.mi.)	Under-Served Area Mitigated (sq.mi.)	Service Area Coverage (sq.mi.)	Population Density per Sq. Mi.	Miles of Fiber	Cost of Fiber	New Fixed Wireless Towers	Cost of New Tower (\$207,500 ea)	Construction Cost Estimate	Tie-On Cost 30% Opt-In	Total Cost at 30% Opt-In	Cost per Potential Customer	Tie-On Cost 100% Opt-In	Total Cost at 100% Opt-In	Cost per Potential Customer
P01	Maplesville Fiber	CA	0	185	136/49	108	2.6	7.2	9.8	75.4	2.0	\$ 105,000.00	0	\$ -	\$ 105,000.00	\$ 277,500.00	\$ 382,500.00	\$ 6,891.89	\$ 925,000.00	\$ 1,030,000.00	\$ 5,567.57
P02	CR-73 Fiber	CA	1	161	161/0	97	4.5	7.7	12.2	67.5	5.5	\$ 288,750.00	0	\$ -	\$ 288,750.00	\$ 241,500.00	\$ 530,250.00	\$ 10,978.26	\$ 805,000.00	\$ 1,093,750.00	\$ 6,793.48
P03	Clanton NW Fiber	CA or UN	0	1051	803/249	553	1.1	7.2	8.3	400.0	5.2	\$ 273,000.00	0	\$ -	\$ 273,000.00	\$ 1,576,500.00	\$ 1,849,500.00	\$ 5,865.84	\$ 5,255,000.00	\$ 5,528,000.00	\$ 5,259.75
P04	Thorsby Fiber	CA	0	476	436/40	278	1.8	12.2	14.0	267.9	4.7	\$ 246,750.00	0	\$ -	\$ 246,750.00	\$ 714,000.00	\$ 960,750.00	\$ 6,727.94	\$ 2,380,000.00	\$ 2,626,750.00	\$ 5,518.38
P05	Jemison Fiber	CA	0	633	575/58	342	2.4	16.9	19.3	156.4	7.9	\$ 414,750.00	0	\$ -	\$ 414,750.00	\$ 949,500.00	\$ 1,364,250.00	\$ 7,184.04	\$ 3,165,000.00	\$ 3,579,750.00	\$ 5,655.21
P06	Clanton W Fiber	CA or UN	0	1124	970/154	700	0.8	13.6	14.4	208.3	4.2	\$ 220,500.00	0	\$ -	\$ 220,500.00	\$ 1,686,000.00	\$ 1,906,500.00	\$ 5,653.91	\$ 5,620,000.00	\$ 5,840,500.00	\$ 5,196.17
P07	Lay Dam Rd Fiber	CA or UN	2	1025	808/217	464	3.2	12.5	15.7	255.9	5.5	\$ 288,750.00	0	\$ -	\$ 288,750.00	\$ 1,537,500.00	\$ 1,826,250.00	\$ 5,939.02	\$ 5,125,000.00	\$ 5,413,750.00	\$ 5,281.71
P08	CR-77/29 Fiber	CA	0	241	228/13	112	2.1	11.4	13.5	127.6	6.0	\$ 315,000.00	0	\$ -	\$ 315,000.00	\$ 361,500.00	\$ 676,500.00	\$ 9,356.85	\$ 1,205,000.00	\$ 1,520,000.00	\$ 6,307.05
P09	AL-145 Fiber	CA	2	163	157/6	93	6.1	32.7	38.8	37.5	7.4	\$ 388,500.00	0	\$ -	\$ 388,500.00	\$ 244,500.00	\$ 633,000.00	\$ 12,944.79	\$ 815,000.00	\$ 1,203,500.00	\$ 7,383.44
P10	Union Grove Fiber	CA	0	113	108/5	62	1.3	16.4	17.7	64.1	5.1	\$ 267,750.00	0	\$ -	\$ 267,750.00	\$ 169,500.00	\$ 437,250.00	\$ 12,898.23	\$ 565,000.00	\$ 832,750.00	\$ 7,369.47
P11	CR-182 Fiber	CA	2	72	71/1	12	1.9	8.5	10.4	18.8	3.2	\$ 168,000.00	0	\$ -	\$ 168,000.00	\$ 108,000.00	\$ 276,000.00	\$ 12,777.78	\$ 360,000.00	\$ 528,000.00	\$ 7,333.33
P12	CR-55 Fiber	CA	3	147	141/6	120	6.7	11.3	18.0	61.0	4.1	\$ 215,250.00	0	\$ -	\$ 215,250.00	\$ 220,500.00	\$ 435,750.00	\$ 9,880.95	\$ 735,000.00	\$ 950,250.00	\$ 6,464.29
P13	CR-61 Fiber	CA	3	98	97/1	77	4.6	14.5	19.1	28.7	2.5	\$ 131,250.00	0	\$ -	\$ 131,250.00	\$ 147,000.00	\$ 278,250.00	\$ 9,464.29	\$ 490,000.00	\$ 621,250.00	\$ 6,339.29
P14	CR-607 Fiber	CA or WS	3	141	140/1	62	8.2	11.3	19.5	33.1	4.7	\$ 246,750.00	0	\$ -	\$ 246,750.00	\$ 211,500.00	\$ 458,250.00	\$ 10,833.33	\$ 705,000.00	\$ 951,750.00	\$ 6,750.00
P15	Mitchell Lake Fiber	CA or WS	1	106	105/1	16	5.8	6.9	12.7	39.1	5.7	\$ 299,250.00	0	\$ -	\$ 299,250.00	\$ 159,000.00	\$ 458,250.00	\$ 14,410.38	\$ 530,000.00	\$ 829,250.00	\$ 7,823.11
P16	Coosa River Fiber	CA or WS	0	161	161/0	87	5.0	5.2	10.2	53.7	5.1	\$ 267,750.00	0	\$ -	\$ 267,750.00	\$ 241,500.00	\$ 509,250.00	\$ 10,543.48	\$ 805,000.00	\$ 1,072,750.00	\$ 6,663.04
P17	Lay Lake FW	CA	3	245	244/1	58	9.1	20.9	30.0	22.3	1.0	\$ 52,500.00	2	\$ 415,000.00	\$ 467,500.00	\$ 91,875.00	\$ 559,375.00	\$ 7,610.54	\$ 306,250.00	\$ 773,750.00	\$ 3,158.16
P18	Coosa River FW	CA or WS	3	572	553/19	329	29.5	27.9	57.4	49.6	0.8	\$ 42,000.00	2	\$ 415,000.00	\$ 457,000.00	\$ 214,500.00	\$ 671,500.00	\$ 3,913.17	\$ 715,000.00	\$ 1,172,000.00	\$ 2,048.95
	Totals			6714		3570	96.7	244.3	341.0		80.6		4								

Fiber Source Codes

FW=Fixed Wireless

CA= Central Access Fiber Fiber Backbone

UN=Uniti Fiber Backbone

WS=Windstream Fiber Backbone

Dependency Codes

0=Connect to existing fiber

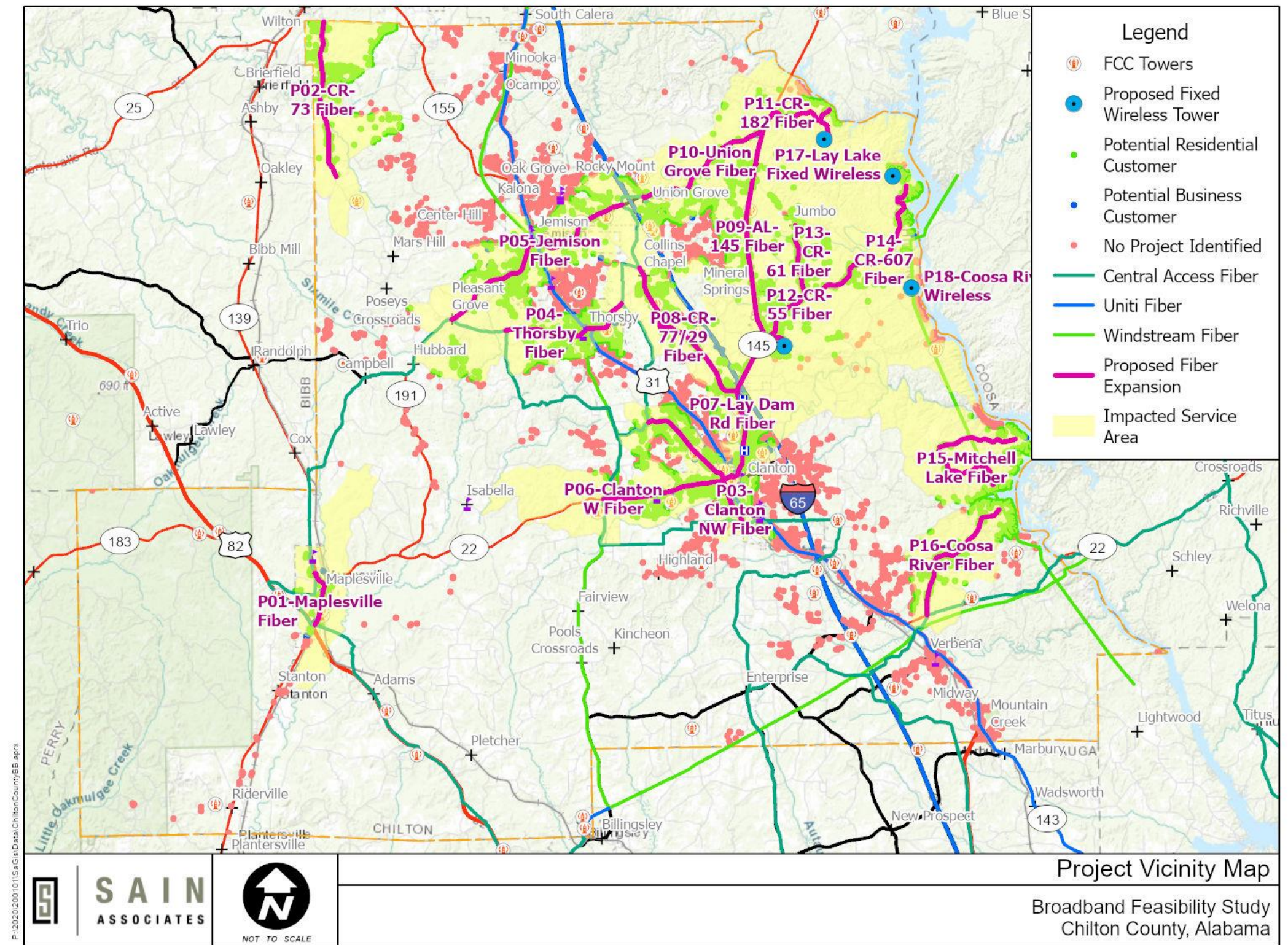
1=Connect to fiber scheduled for construction in grant

2=Connect to fiber contingent on another recommended project tying to existing fiber

3=Connect to fiber contingent on construction of 2 or more other recommended projects

Preliminary Project Map

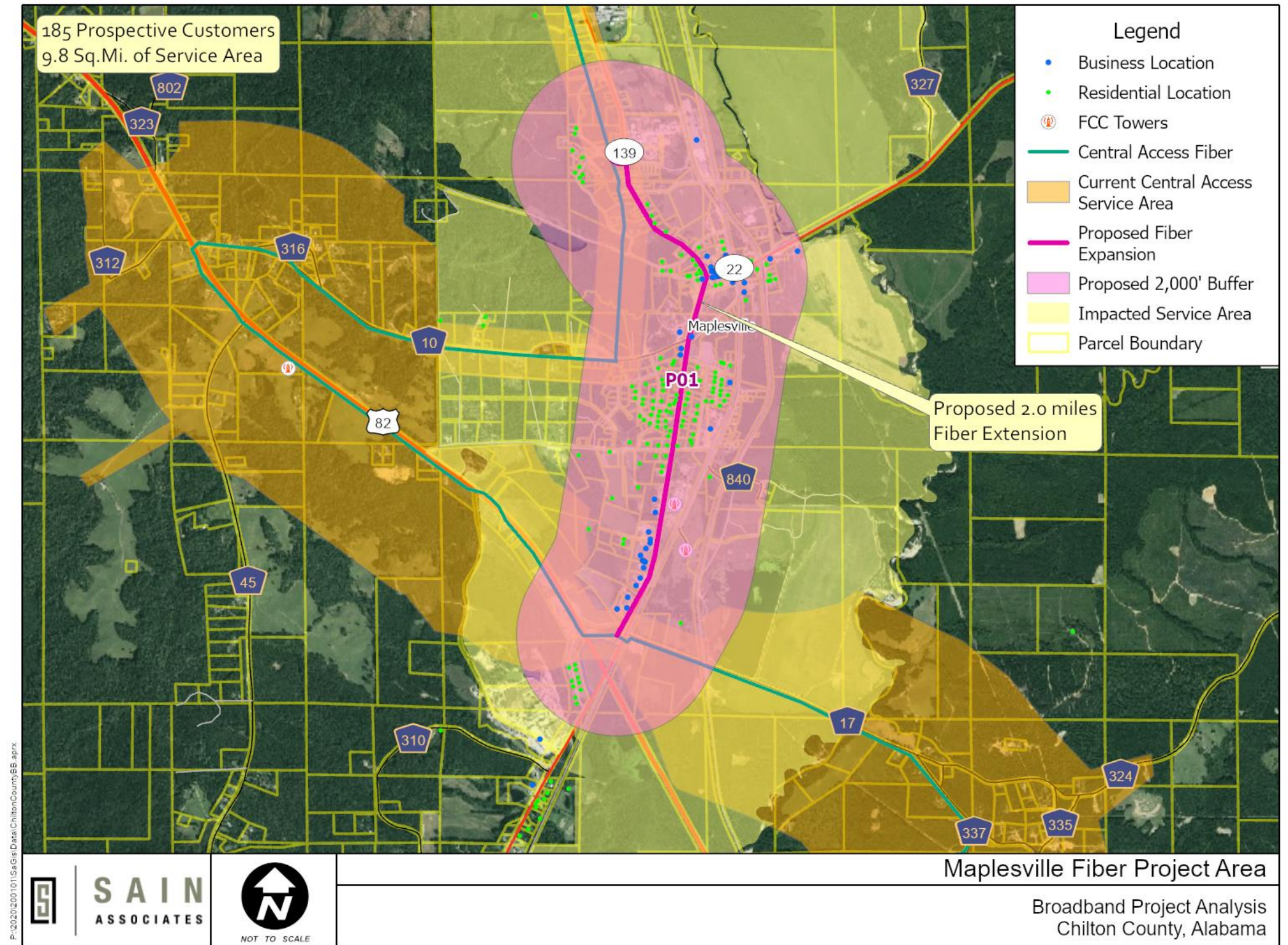
1. Maplesville Fiber
2. CR-73 Fiber
3. Clanton NW Fiber
4. Thorsby Fiber
5. Jemison Fiber
6. Clanton W Fiber
7. Lay Dam Rd Fiber
8. CR-77/29 Fiber
9. AL-145 Fiber
10. Union Grove Fiber
11. CR-182 Fiber
12. CR-55 Fiber
13. CR-61 Fiber
14. CR-607 Fiber
15. Mitchell Lake Fiber
16. Coosa River Fiber
17. Lay Lake Fixed Wireless
18. Coosa River Fixed Wireless



Detailed Project Maps

Shows:

1. Proposed infrastructure improvement
2. Potential customers
3. Service areas impacted



Project Scoring

1. Potential new customers
2. Students in Service Area
3. Unserved Area Mitigated
4. Underserved Area Mitigated
5. Population Density
6. Construction Cost Estimate
7. Tie-On Cost Estimate
8. Cost per Potential Customer

Project Name	Final Score	Estimated Construction Cost
Clanton West Fiber	105	\$220,500.00
Jemison Fiber	99	\$414,750.00
Thorsby Fiber	97	\$246,750.00
Clanton Northwest Fiber	86	\$273,000.00
Maplesville Fiber	85	\$105,000.00
Coosa River Fixed Wireless	84	\$457,000.00
Lay Dam Road Fiber	83.2	\$288,750.00
CR-77/29 Fiber	78	\$315,000.00
Union Grove Fiber	74	\$267,750.00
AL-145 Fiber	68	\$388,500.00
Lay Lake Fixed Wireless	67.2	\$467,500.00
Coosa River Fiber	67	\$267,750.00
CR-55 Fiber	66.5	\$215,250.00
CR-61 Fiber	63	\$131,250.00
Cr-607 Fiber	58.8	\$246,750.00
CR-73 Fiber	56.7	\$288,750.00
Mitchell Lake Fiber	49.5	\$299,250.00
CR-182 Fiber	44.8	\$168,000.00

Budgetary Cost Estimates

1. Clanton West Fiber

Line Item	Cost
Construction of 4.2 miles of aerial fiber	\$220,500.00
Planning	22,050.00
Permitting	11,025.00
Contingency	11,025.00
Total Budget Estimate	\$264,600.00

5-Year Implementation Plan

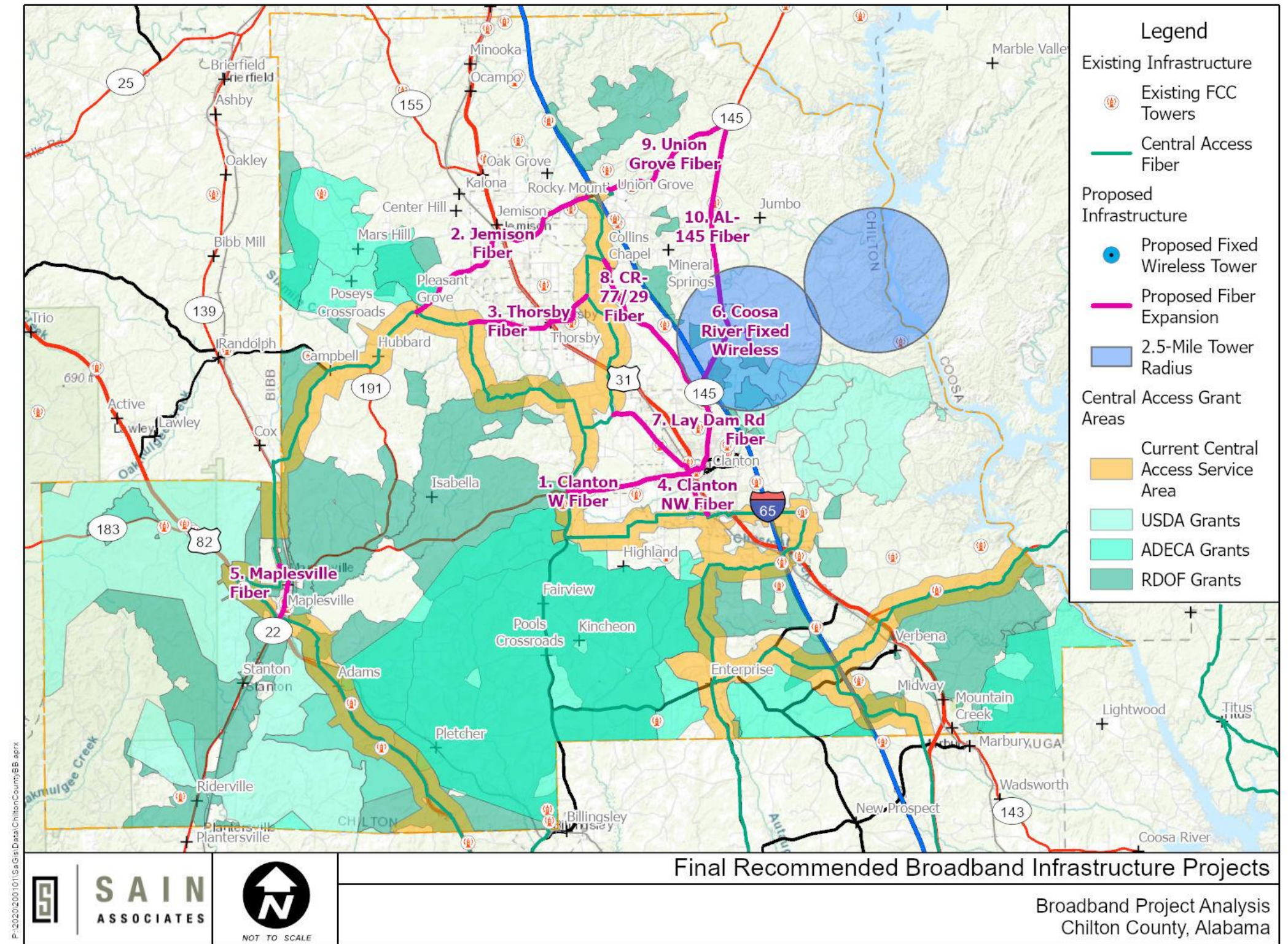
Project Name	Estimated Construction Cost	Population Served	Annual Expenditure
Year 1		6,017	\$762,300.00
Clanton West Fiber	\$264,600.00		
Jemison Fiber	\$497,700.00		
Year 2		7,222	\$768,600.00
Thorsby Fiber	\$296,100.00		
Maplesville Fiber	\$126,000.00		
Lay Dam Road Fiber	\$346,500.00		
Year 3		6,165	\$876,000.00
*Coosa River Fixed Wireless	\$548,400.00		
Clanton Northwest Fiber	\$327,600.00		
Year 4		2,857	\$699,300.00
CR-77/29 Fiber	\$378,000.00		
Union Grove Fiber	\$321,300.00		
Year 5		1,456	\$466,200.00
AL-145 Fiber	\$466,200.00		
Total Project Implementation		22,809	\$3,572,400.00

Proposed Funding Scenarios

	Cost for County Subsidizing 25% of Project Cost	Cost for County Subsidizing 50% of Project Cost	Cost for County Subsidizing 100% of Project Cost
Year 1	\$183,075.00	\$366,150.00	\$762,300.00
Year 2	\$192,150.00	\$384,300.00	\$768,600.00
Year 3	\$219,000.00	\$438,000.00	\$876,000.00
Year 4	\$174,825.00	\$349,650.00	\$699,300.00
Year 5	\$116,550.00	\$233,100.00	\$466,200.00
Total Subsidy	\$885,600.00	\$1,771,200.00	\$3,572,400.00

Final Project Map

- 9 Fiber Expansion Projects
 - Approx. 49 miles of new Fiber
- 1 Fixed Wireless Project
 - 2 Towers
- Total Estimated Project Budget - \$3,572,400
- Potential 22,000 New Broadband Customers
- Approx. 209 sq. mi. of unserved and underserved area mitigated



Thank You

Daniel R. Mellott, GISP

Sain Associates

205-790-5752

dmellott@sain.com

In cooperation with:

- Chilton County Commission
- Chilton County Industrial Development Authority
- Chilton County Board of Education
- City of Clanton
- City of Jemison
- Town of Maplesville
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