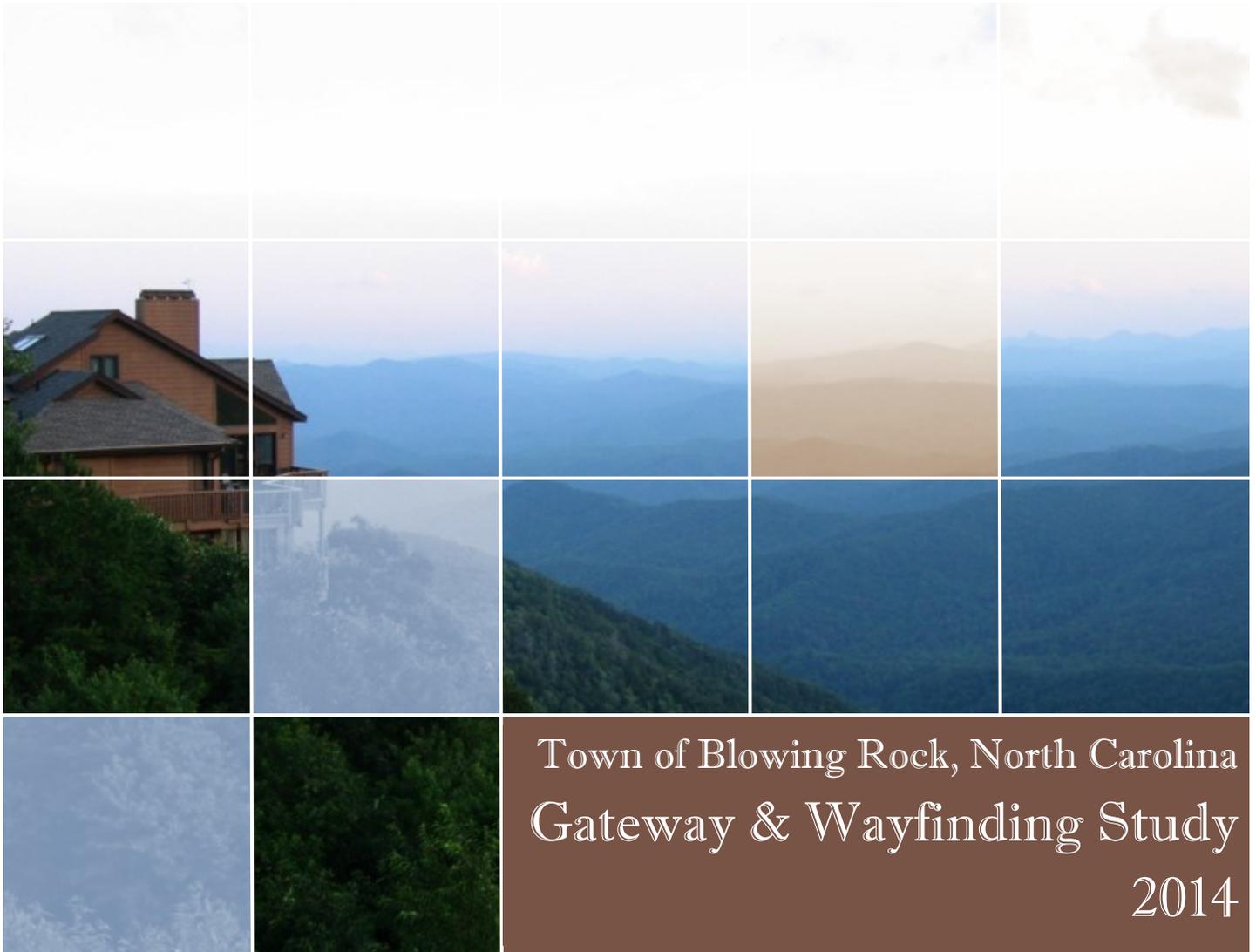


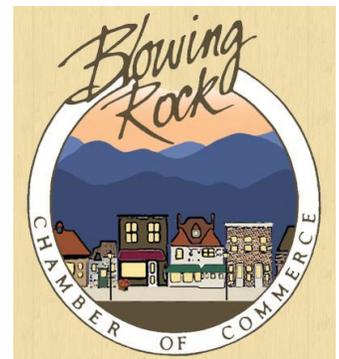
Under One Roof



Town of Blowing Rock, North Carolina
Gateway & Wayfinding Study
2014



Appalachian
STATE UNIVERSITY®





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PROJECT BACKGROUND

The following is a report on a gateway project for Blowing Rock, North Carolina. It was prepared for the Blowing Rock Appearance Advisory Commission (BRAAC) by representatives of Appalachian State University at the request of the Blowing Rock Chamber of Commerce. This report revolves around the foundational problem of any gateway project: defining the character of the place in which it resides. The town's background information and the methods utilized by the research team, as well as their findings, are outlined within.

In the fall of 2013, the Blowing Rock Chamber of Commerce approached Dr. Terence Milstead, Assistant Professor in the Department of Geography and Planning at Appalachian State University, about a preliminary background and planning report on the potential of a gateway project for the town, particularly along highway US 321. That meeting resulted in a studio course opportunity for ASU's graduate planning students.



Figure 1. Martin House
Photo courtesy of: dottoregianni.blogspot.com



Figure 2. Flat Top Manor
Photo courtesy of: www.news.appstate.edu



EXECUTIVE SUMMARY

“Many parts of a town have boundaries drawn around them. These boundaries are usually in people’s minds. They mark the end of one kind of activity, one kind of place, and the beginning of another. In many cases, the activities themselves are made more sharp, more vivid, more alive, if the boundary which exists in people’s minds is also present physically in the world.”

-Christopher Alexander, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King, and Shlomo Angel, *A Pattern Language: Towns, Buildings, Construction* (1977)

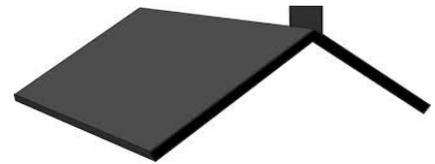
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Glossary

- **Methodology** is the system of methods used in a particular area of study or activity.
- A **wayfinding system** is the various ways in which people and animals orient themselves in physical space and navigate from place to place.
- A **studio course** is opportunity for students to undertake a real world problem as part of their education.
- A **focus group** is an assembly of 6-8 individuals participating in a guided discussion to provide feedback on various subjects, such as political or social activities.
- A **gateway** is a threshold which creates and reinforces the physical boundaries of a certain unit.

This reports intends to identify the gateway areas of Blowing Rock and provide solutions to improve the functionality and aesthetics of those locations to more clearly reflect the spirit of the town.



Design Concepts

This section presents the final design concepts for Blowing Rock’s gateways. A description of each design is given as well as how the characteristics of the town and the research results influenced the gateway designs.

Contextual Information

- Historical Background
- Demographic Statistics of Blowing Rock

Methodology

- Case Studies
- Empirical Research
- Interviews
- On-site observations
- Focus Group

Conclusions and Recommendations

Found in this section are the research findings and data results of the report process. These outcomes provided information for designing the conceptual gateway entrances within Blowing Rock and suggestions for future actions.

Problem statement

The Town of Blowing Rock lacks an identifiable visual theme to promote a sense of place within the community. The NCDOT widening of the Highway 321 bypass creates the opportunity to create a gateway plan that incorporates design elements to strengthen a number of determined weaknesses.



HISTORICAL BACKGROUND



Figure 3. August Gottlieb Spangenberg
Photo courtesy of: Boston University School of Theology

Pre-1800

The first recorded mention of the area surrounding Blowing Rock dates from the mid-eighteenth-century when August Gottlieb Spangenberg, a Moravian Bishop, traveled through the colonial backcountry and recorded his experiences (Buxton, *A Village Tapestry*).

In 1790, the Greene family, later proprietors of the Green Park Inn, became the first settlers in what is now Blowing Rock (*History*, n.d., <http://www.blowingrock.com/history.php>).



Figure 4. Green Park Inn
Photo courtesy of: Historic Hotels of America

1800-1900

By the mid-nineteenth-century, Blowing Rock served as a vacation destination for many Southern elites, due in part to its mild summer climate and the construction of the Caldwell-Watauga Turnpike in 1851 (National Register of Historic Places Inventory, Green Park Inn). Many wealthy families who chose to build summer homes in the area referred to themselves as “cottagers” (Buxton, *A Village Tapestry*, p. 4). Some of the notable individuals to frequent Blowing Rock were Moses Herman Cone, Elliot Daingerfield, James William and Charles Albert Canon, and Robert Sloan Mebane.

Blowing Rock developed to the point that it became officially incorporated as a town by the North Carolina General Assembly in 1889 (Buxton, 91).

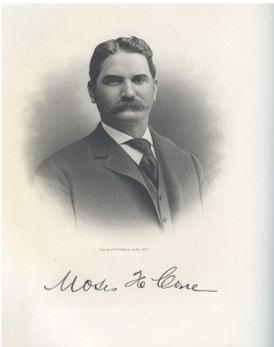


Figure 5. Moses Herman Cone
Photo courtesy of: textilehistory.org

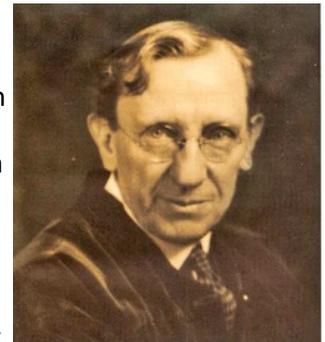


Figure 6. Elliot Daingerfield
Photo courtesy of: the Mountain Times

1900-2000

The Roaring Twenties in particular ushered in the greatest degree of change in Blowing Rock: the creation of an eighteen-hole golf course in 1920; the construction of the commercial brick buildings along Main Street in 1923; and the annexation of the Green Park and Mayview Park communities in 1926 (Buxton, 30-31; National Register of Historic Places Inventory, Green Park Inn).

By the mid-twentieth-century, Blowing Rock had successfully established itself as a premier destination for mountain vacation, as well as a picturesque family-oriented town which still persists into the present.



Figure 7. Blowing Rock, mid-20th century.
Photo courtesy of: High Country 365



CURRENT DEMOGRAPHICS

Demographics of the Town of Blowing Rock

	Blowing Rock	Watauga County	North Carolina	United States
Population Estimate (2012)	1,224	52,472	9,765,229	313,873,685
Summer residents	8,000	(X)	(X)	(X)
Persons under 18 years (2008-2012)	4.2%	13.6%	23.8%	23.9%
Persons 64+ years, 5-year avg. (2008-2012)	35.7%	12.4%	13.1%	3.6%
Female persons, 5-year avg. (2008-2012)	54.3%	50.0%	51.3%	50.8%
Bachelor's degree or higher, age 25+, 5-year avg. (2008-2012)	50.7%	38.4%	26.8%	28.5%
Homeownership rate, 5-year avg. (2008-2012)	69.5%	55.1%	67.1%	65.5%

Figure 8. Demographic Statistics of the Town of Blowing Rock
 Blowing Rock Tourism Development Authority; North Carolina Office of State Budget and Management; U.S. Census Bureau, American Community Survey. Generated by Z. Swick



Figure 9. Southern boundary entrance sign along US Highway 321
 Photo source, Z. Swick, 2014

ECONOMIC BASE ANALYSIS

An economic base analysis is a way of breaking down a local economy into two sectors: basic and non-basic. Basic sectors are those for which the supporting revenue comes from outside the local economy (ex. Manufacturing); non-basic sectors of the economy are those for which the supporting revenue comes from inside the local economy (certain services). By breaking down the local economy into basic and non-basic, we can calculate a “base multiplier,” which is a figure that tells us how many non-basic jobs are created when a basic job is created.



Figure 10. Chetola Resort and Spa
Photo courtesy of: TravelPod

The team calculated the economic base analysis for the Town of Blowing Rock using the 2008-2012 five year ACS data from the US Census. The occupational data used in the analysis consisted of five classes (656 total employed population).



Figure 12. Blowing Rock Town Hall
Photo courtesy of: Lawrence Lueke Studio

Economic Base Analysis		
Employment Sectors	Number of Jobs	Basic or Non-Basic Sector
Management, Business, Science, and Arts Occupations	278	Non-Basic
Service Occupations	78	Non-Basic
Sales and Office Occupations	226	Basic
Natural Resources, Construction, and Maintenance Occupations	11	Non-Basic
Production, Transportation, and Material Moving Occupations	63	Basic

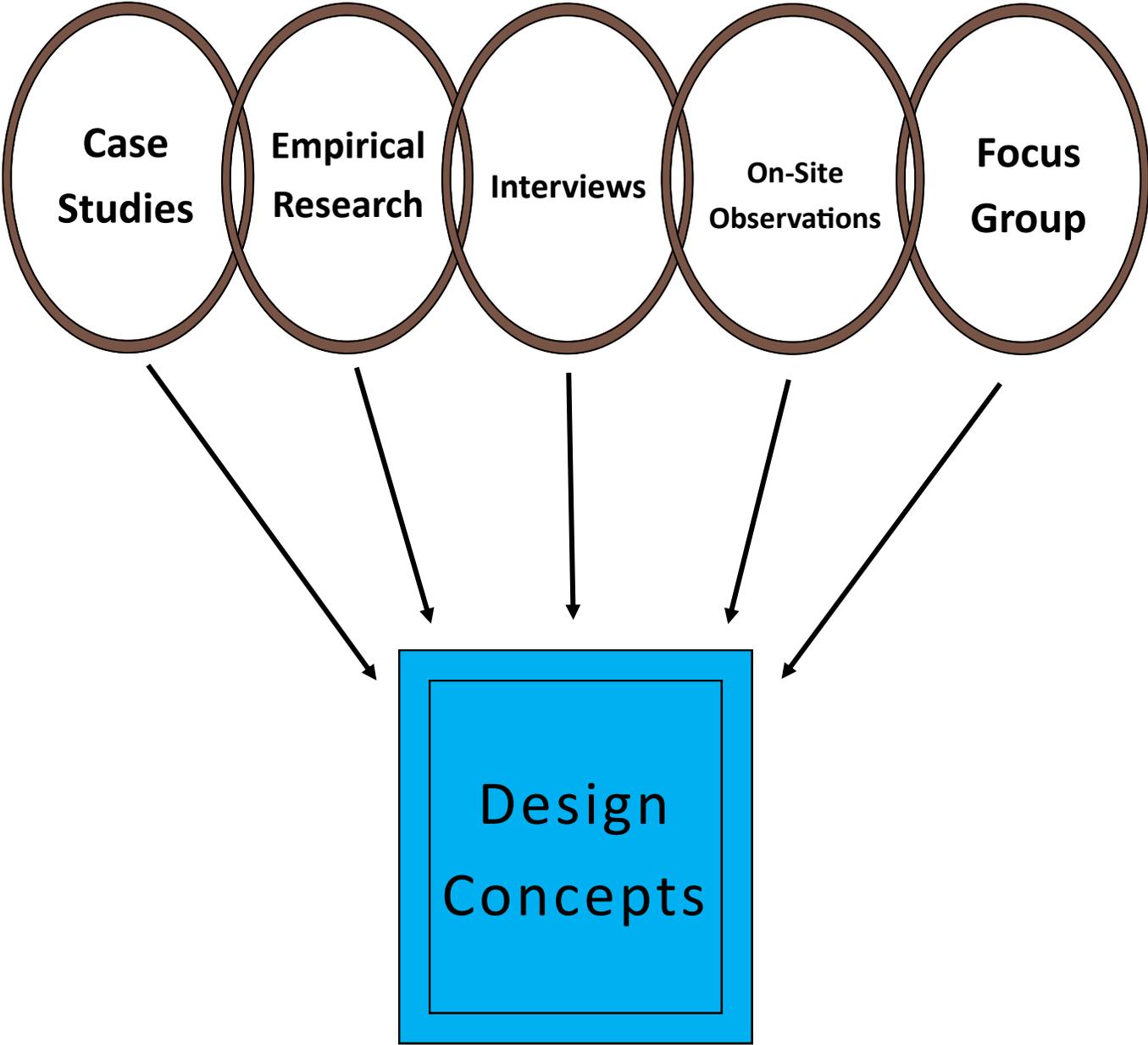
Figure 11. Economic Base Analysis of the Town of Blowing Rock, North Carolina.

Source: US Census 2008-2012 ACS Estimates, generated by B. Danemiller

The economic base analysis determined that for every **1 Basic** sector job in Blowing Rock there are **1.3 Non-Basic** sector jobs created.



METHODOLOGY





DEFINING THE ESSENCE

Implementing mixed research methods allowed the team to gain insight into the essence of Blowing Rock through different perspectives of the town. As the project progressed, common themes began appearing out of the research. As part of the research, a focus group was conducted in late March; the findings of this research method supported the previous research outcomes which served to solidify the essence of Blowing Rock. Following is a summary of that focus group.

The focus group, which consisted of seven local business owners selected by a third party, met at the Blowing Rock Chamber of Commerce to conduct the meeting. The group members received information pertaining to the discussion matter prior

[*“Mountain Time.”*] to the meeting but received no specific details. Of the two team members, one moderated

the focus group while the other team member recorded the subtle aspects of the meeting, such as body language and voice tone. The moderator led the focus group following a loose outline of related topics but allowed for the conversation to flow naturally. During the session, the group participants had the freedom to speak freely and pose questions to one another. Discussion revolved around two main themes: the identity of/sense of place in Blowing Rock and the functionality of

transportation systems within the town. The session lasted for approximately one hour and was recorded in its entirety to be reviewed more thoroughly at a later date.

Immediately following the focus group, the facilitators convened to analyze the outcome of the session. After the vital results were

[*“Our town is a park.”*]

collected, the group facilitators then compiled them into four topics: concepts, images, locations/junctions, and market demographics.

Some unexpected results from the focus group included the influence of the Blue Ridge Parkway on the identity of Blowing Rock and the perception that the town’s public infrastructure is adequate, although a desire for encouraging more pedestrian traffic within the downtown was noticeable. The theme of a more leisurely lifestyle, or ‘mountain time,’ also ran throughout the discussion.

The results from the focus group confirmed the findings made from previous research conducted by the gateway team and proved to be a useful tool in confirming that the business community's understanding of Blowing Rock matched that of the general public.

Major Concepts

- **Blowing Rock is quaint, friendly, safe, 'Norman Rockwellian,' and familiar.**
- **Stone, landscaping, rhododendron, and an understated design.**
- **The Blue Ridge Parkway bridge over US 421, curvy roads, and an elevation-related sense of direction are seen as important boundaries.**
- **Sunset Drive is perceived as a guiding mechanism to direct visitors to the downtown.**
- **Children, families, and women are seen as prominent demographic entities.**



Figure 13. Downtown Blowing Rock
Photo courtesy of: K. Martin, 2014.



STUDY AREA DIAGRAM

The members of the design team worked through a very iterative and involved process to generate a number of conceptual design elements and recommended design solutions for the gateways into Blowing Rock. To begin this process, the design team drafted a Concept Diagram/Map which detailed the areas of interest within the study area of the Town of Blowing Rock. The Concept Diagram depicts the hierarchy of locations/zones to assign specific features. Within the defined nodes and corridors of interest we began the process of drafting, critiquing, and redesigning our conceptual gateway features. The empirical research and other various types of analysis previously conducted by the gateway team provided the foundation for the conceptual design features. With direction and guidance from a professional landscape architect, the design team possessed ample resources to design a valuable gateway entrance system for the Town of Blowing Rock.

Blowing Rock Gateway: Concept Map

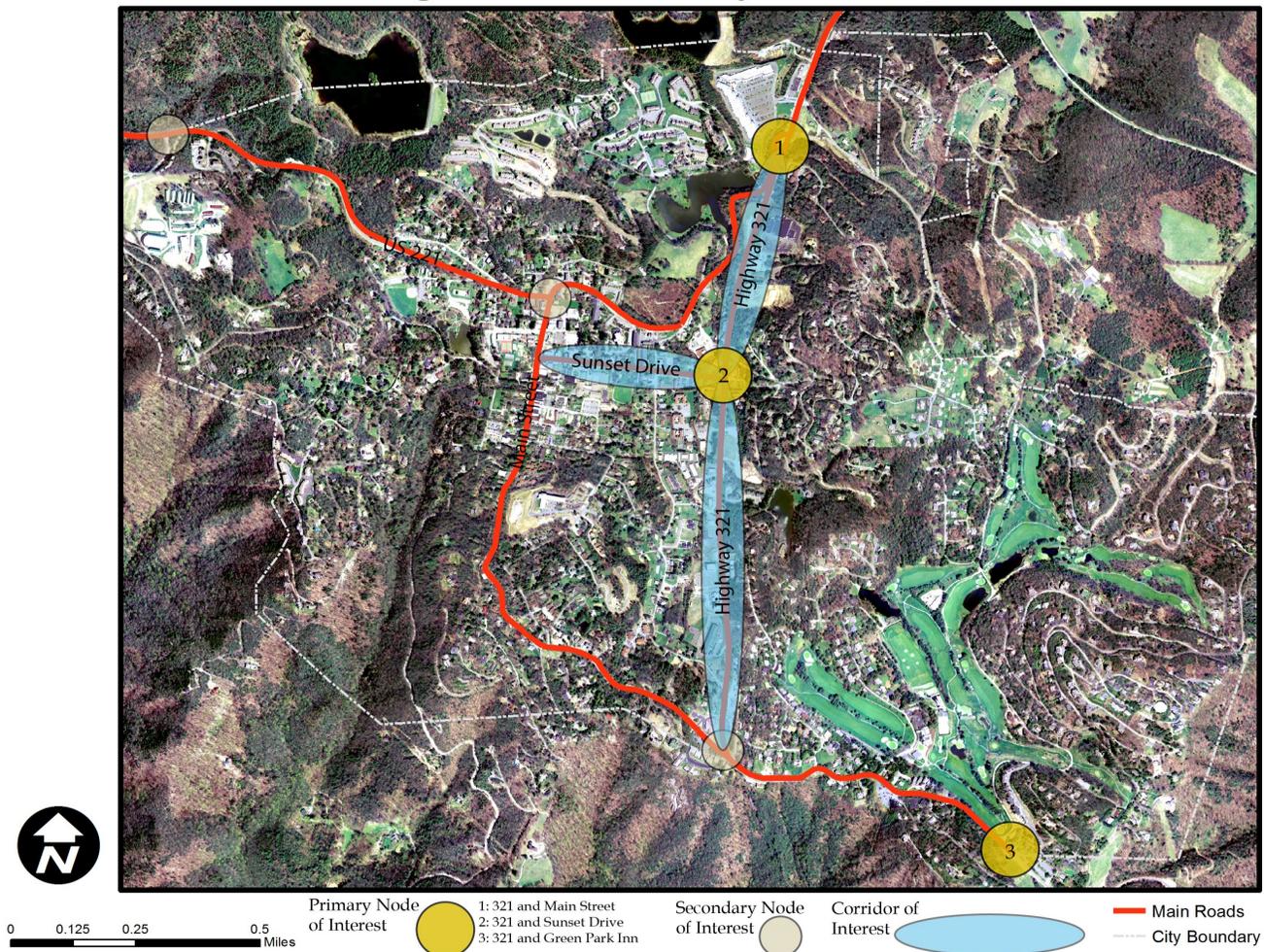


Figure 14. Aerial map of project area



EXISTING CONDITIONS



Figure 15. US321/US221intersection.
Photo courtesy of: K. Martin, 2014



Figure 16. US321/Sunset Dr. intersection.
Photo courtesy of: Z. Swick, 2014



Figure 17. US321/US321-Business intersection.
Photo courtesy of: Z. Swick, 2014



Figure 18. US Highway 321
Photo courtesy of: K. Henson, 2014



Figure 19. US Highway 321/221 intersection
Photo courtesy of: P. Buathier, 2014.



DESIGN CONCEPT

By analyzing case studies, conducting both empirical research and personal interviews, performing on-site observations, and holding a focus group, the design team generated a number of well-informed conceptual gateway design features. Prior to creating the conceptual design elements, the team first determined a number of points and corridors of interest within the town. The exact locations of these points of interest are depicted in our Concept Diagram.

The next step in the design process consisted of defining the essence of Blowing Rock. This research culminated in the phrase of **Under One Roof** as representing the essence of the Town as well becoming the guiding ideology behind the conceptual gateway designs. The **Under One Roof** principle is found in each design feature that the team created. The phrase, expressed in the form of structural design features, emulates the identity of the Town of Blowing Rock and, in effect, strengthens the Town's overarching identity.

Under
One Roof

Under One Roof representing the essence of Blowing Rock became apparent during the team's meticulous research of the Town. Team brainstorming for descriptions of Blowing Rock resulted in such words as quaint, charming, welcoming, familiar, and warm—all words that suggest a sense of being home. In fact, Blowing Rock is considered by many to be home, as evident from the personal interview responses.

Yet, the team continued to research and expand on the idea of being home. The charming and laidback nature of the Town elicits the feeling of returning home, but in what way does being quaint, safe, welcoming, and warm represent the idea of home? The actual house itself was the answer. While Blowing Rock is perceived as home by its community, the team understood the town to be the house that is also home. Thus came the **Under One Roof** principle, welcoming everyone home under the one roof that is Blowing Rock.



Figure 20. Blowing Rock Realty
Photo courtesy of: K. Martin, 2014



Figure 21. Example of Blowing Rock Architecture
Photo courtesy of: K. Henson, 2014



SUNSET DRIVE

The Sunset and US Highway 321 intersection was chosen as the center-piece for our design concept for a number of reasons: 1) the location exhibits the best opportunity to strengthen the identity and sense of place for the Town of Blowing Rock within our study area; 2) Sunset Drive, moving into the future, can be utilized as the connecting corridor between Main Street (Downtown Blowing Rock) and the 321 corridor of businesses; and 3) due to the spatial location of Sunset Drive within the study area, it is the most suitable location to attract travelers both south-bound and north-bound travelers. Again, at this location you will see our common theme **Under One Roof** expressed as the principle concept guiding our designs.

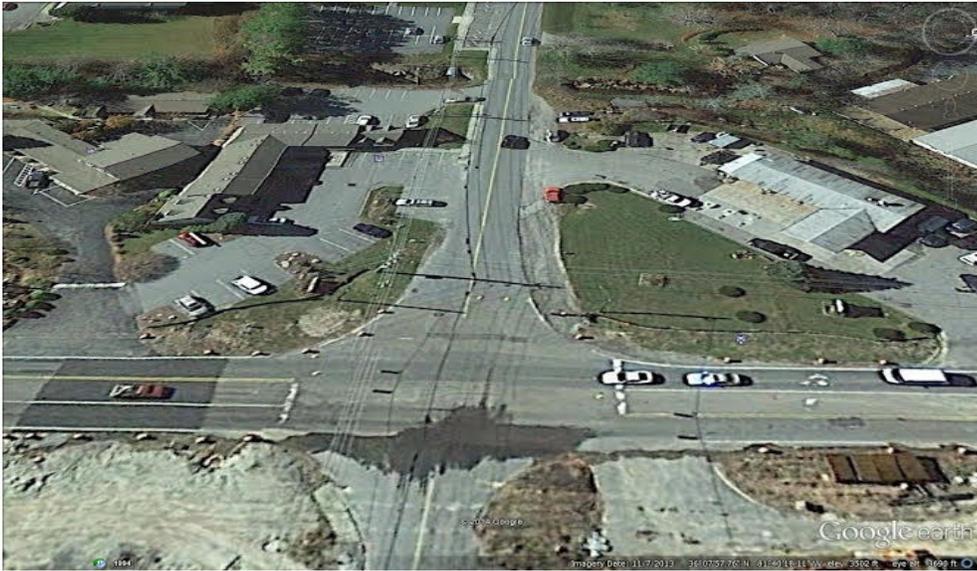


Figure 22. US Highway 321/ Sunset Drive intersection
Photo courtesy of, GoogleEarth



Figure 23. Full view of Sunset Drive gateway entrance

A banner featuring a scenic landscape with a large rock formation in the foreground and rolling hills in the distance under a blue sky with light clouds. The text "SUNSET DRIVE" is centered in a white rounded rectangle with a blue border.

SUNSET DRIVE



Figure 24. Sunset Drive gateway entrance



Figure 25. Bird's eye view of Sunset Drive gateway entrance



Figure 26. Sunset Drive gateway entrance



Figure 27. Sunset Drive gateway entrance



As you drive North on US Highway 321 towards Blowing Rock, you encounter a *Welcome to Blowing* Rock sign that incorporates some common themes of Blowing Rock, such as the stacked rocks. However, this sign does not follow an identifiable theme with other signs in the town. The design that we proposed seeks to incorporate an associated theme that the other designated locations will exhibit—common building materials found in the town and landscaping to emulate the park-like atmosphere of Blowing Rock. This design will improve the area by exhibiting Blowing Rock’s essence and it will also have the same design concept that is found at the Sunset entrance, which will help direct visitors to the downtown area.

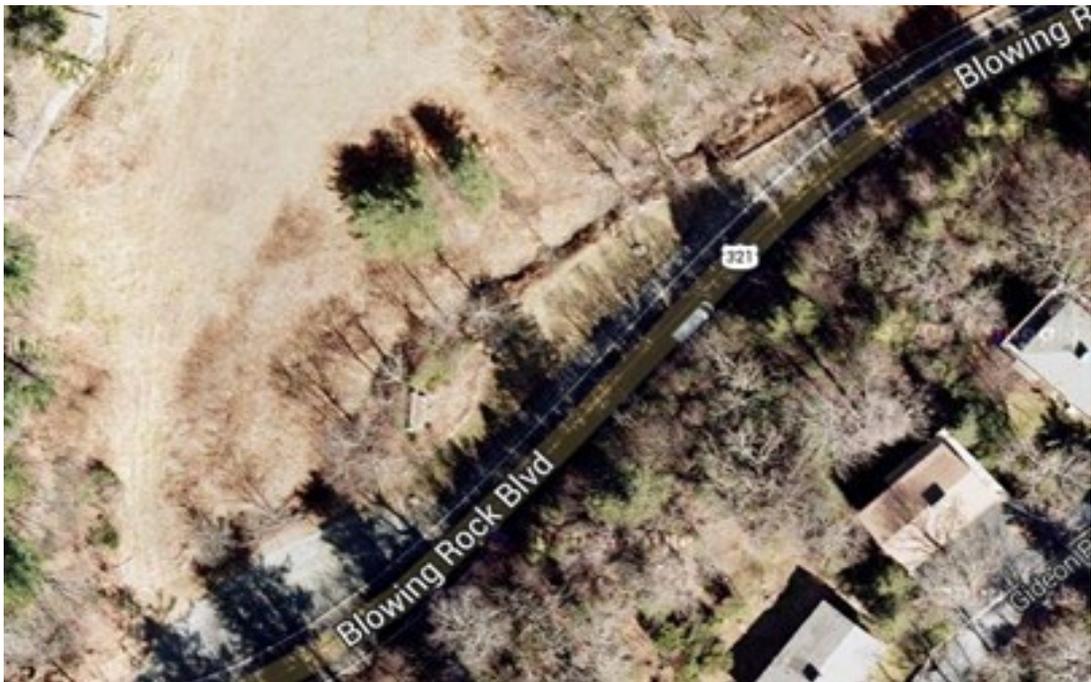


Figure 28. Southern boundary along US Highway 321
Photo courtesy of : Google Earth



Figure 29. Southern gateway entrance along US Highway 321



Figure 30. Southern gateway entrance along US Highway 321

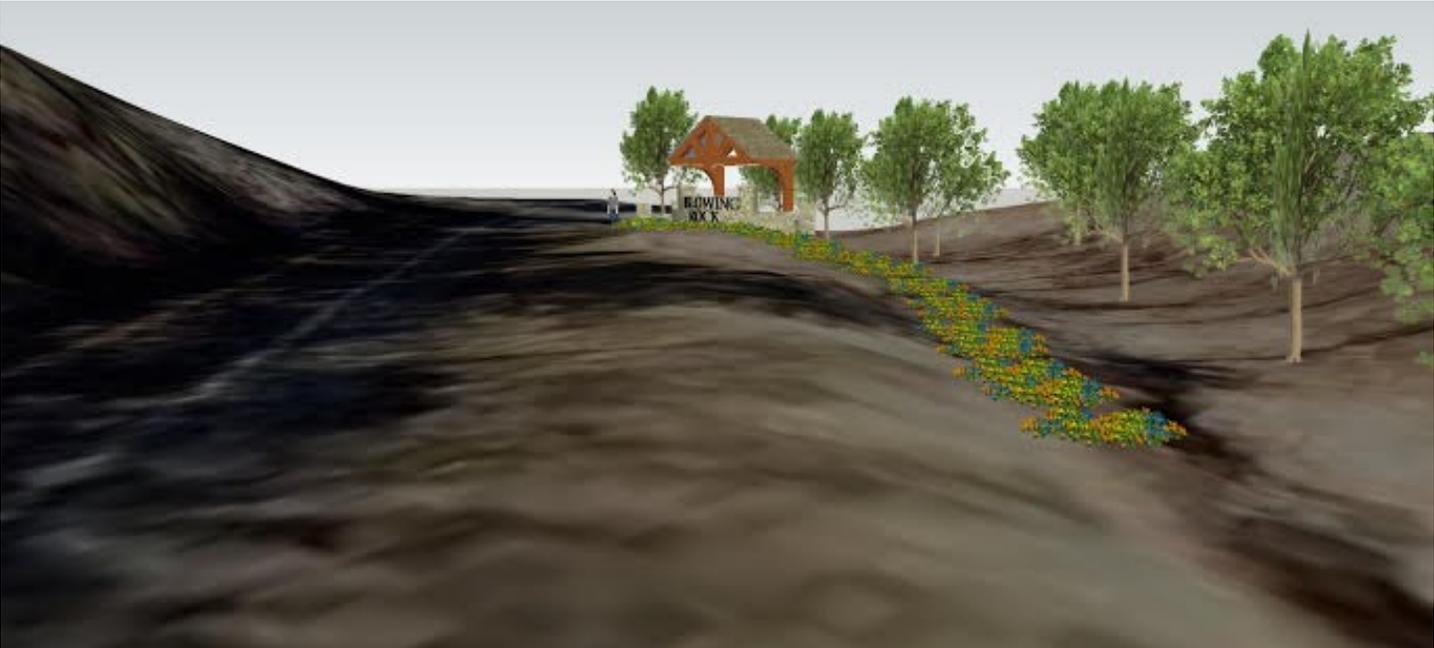


Figure 31. Southern gateway entrance along US Highway 321



Figure 32. Bird's eye view of Southern gateway entrance along US Highway 321



The area next to Chetola was chosen as the northern boundary for this project because the US Highway 321 road widening project will remove that entry to downtown and convert it into a 5-space parking lot, making this location ideal for an entry sign and a small recreational area. The architecture of the sign will introduce the **Under One Roof** theme that is seen at the entrance of Sunset Drive and at the southern boundary of Blowing Rock, while also providing a pedestrian-friendly area for families to gather. This location will also function as a pit-stop for the future bike trail running from Boone to Blowing Rock while also encouraging pedestrian visitors. By making what would otherwise be a vacant parking lot with little visual attractiveness into an aesthetically-pleasing recreational space, visitors will be drawn to the location and passers-by will feel a sense of place as they see the same theme repeated twice more along the US Highway 321 By-pass.



Figure 33. US Highway 321/221 intersection
Photo courtesy of: Google Earth



Figure 34. Northern gateway entrance along US Highway 321



Figure 35. Northern gateway entrance sign along US Highway 321



Figure 36. Recreational area of the Northern gateway entrance along US Highway 321



Figure 37. Parking lot at Northern gateway entrance along US Highway 321



CONCLUSION

A successful gateway project must be expressive and functional. It should capture the spirit of the place where it resides as well as direct, clarify, and explain. The research conducted by the team sought to identify the intimate essence of Blowing Rock through resident interviews and a focus group, academic research, on-site observations, and investigating similar gateway projects. The comprehensive results from the research indicated that Blowing Rock is perceived as a safe, friendly town that is both charming and laid-back. After analyzing these themes, the team produced the ideology of **Under One Roof** to direct the design process, which encompassed the various research findings and themes found within the town. **Under One Roof** represents the true essence of Blowing Rock, in the sense that the town is “home” to many and welcoming to all residents and visitors alike.

The Blowing Rock gateway proposal accomplishes these objectives through its dominant theme of **Under One Roof**. This message is supported by carefully chosen design principles which acknowledge the town's unique history and capitalize on its bright future. Reflecting the community it represents, the inviting nature of the project will be successful in meeting the wants and needs of residents and visitors.

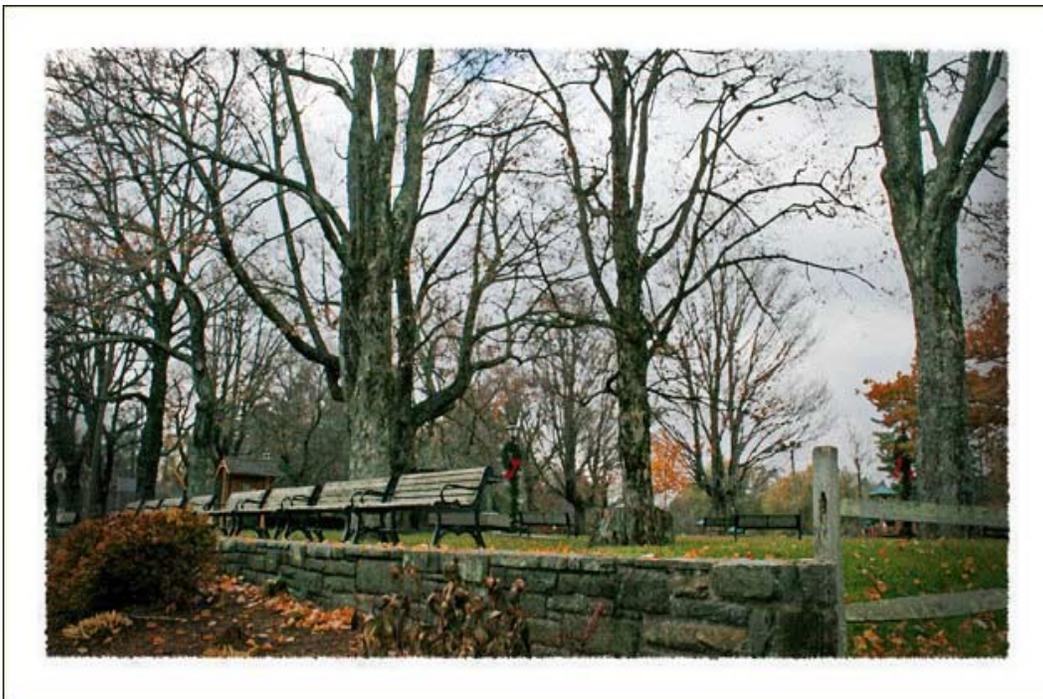


Figure 38. Blowing Rock Town Park
Photo courtesy of: BooneNCMagazine.com

APPENDIX A

Case Studies

The team's case studies are investigations of other gateway projects completed elsewhere in order to gain valuable information about successful gateway design and implementation processes.

This research focused on projects in areas similar to that of Blowing Rock.

Two-Step Process

1. Collect information on the many gateway projects that have been or are in the process of being implemented
2. Narrow down this data to the case studies that most similarly reflected the elements of Blowing Rock

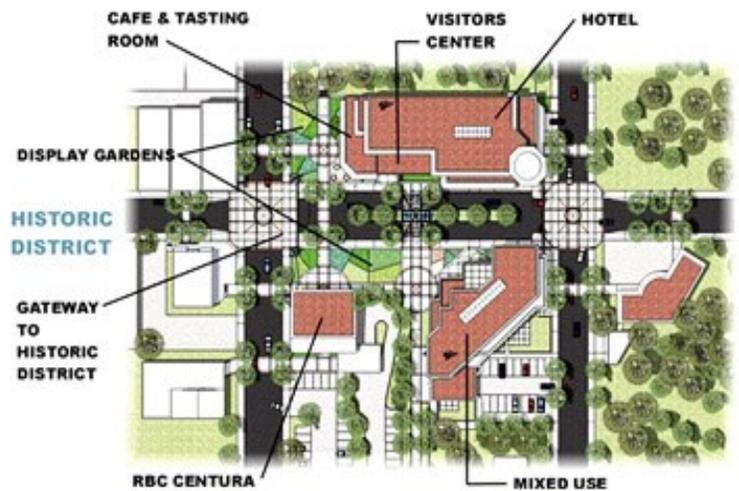


Figure 39. Andrews, NC conceptual gateway design.
Photo courtesy of: www.andrewsvalley.org



Figure 40. Tualatin, OR gateway entrance.
Photo courtesy of: www.oregonlive.com

Results

- Gateways should instantaneously announce and reflect the town's unique history, culture, and identity.
- Gateways also create a memorable and identifiable town image that will immediately draw in motorists and pedestrians alike.
- Gateways should be aesthetically-pleasing and should utilize native materials (such as native rocks, flowers, and wood) in its designs.

APPENDIX B

Empirical Research

The empirical research conducted by the team analyzed academic research on the creation of effective gateways and wayfinding systems within urban locations.

Themes

1. **Spatial wayfinding abilities are heavily impacted by both gender and age.**
2. **Emphasizing a unique sense of place in gateway and wayfinding system design is essential in establishing operative gateways.**
3. **Urban environmental design is a key element in supporting effective gateway and wayfinding systems.**

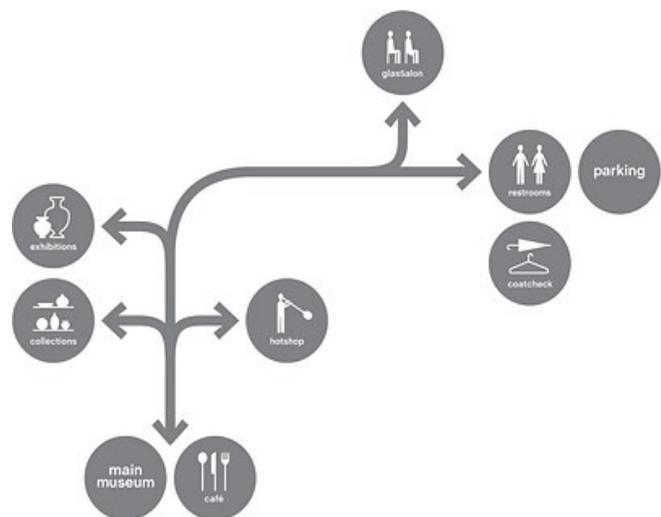


Figure 41. Example Wayfinding System
Photo courtesy of: minimalissimo.com

Results

- Females are more attuned to landmarks, while males are more attuned to routes and connectors
- Older adults have greater trouble in recalling landmarks and in learning routes due to a worsened memory capacity.
- Emphasizing the location's unique sense of place in all gateway and wayfinding design is essential to the creation of an efficient and effective final product that will stand the test of time.
- The key elements in effective gateways/wayfinding systems are architecture, graphics, and human interaction.



APPENDIX D

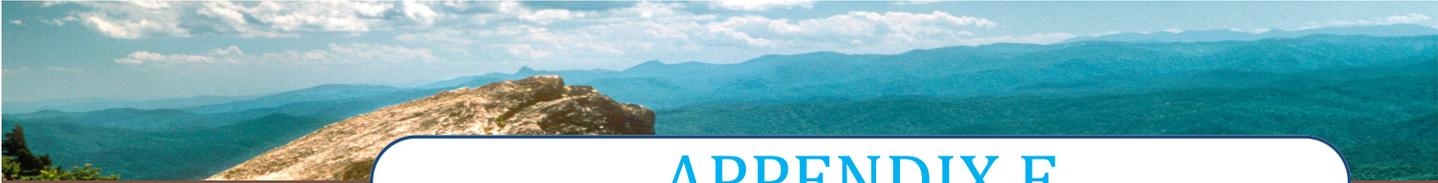
Interviews

Since designing effective gateway entrances requires an intimate understanding of the locality in need, it was important for our team to gain a sense of Blowing Rock’s identity through residents’ perception of the town and its problems. In order to obtain this information, our team conducted a total of 21 interviews. The team then conducted an interview analysis to extract major themes from the interviews to inform our design process.

The following chart is an analysis of the prominent interview responses.

Art	Aesthetics	Problems	Parks	Essence/Identity	Improvements
Artistic community of sorts	Beautiful	Signage to get downtown	Downtown park is center of town	Family atmosphere	Stone columns in the streetscape
Need more of the musical side of art	Mountaineer	Sunset is not attractive	Downtown park is great	Inviting	Landscaping, like trees and plants
No high-level art but BR could not support such art	Rustic	Telephone and utility poles are unattractive	Parks are important because they are meet and greet areas.	Safe	Enhance entrances, especially Sunset
The museum is great for the art scene	Timber, especially used in peaks of entrances to homes	Signage is outdated		Hospitable	Bike lanes
A lot of crafts like jewelers, ceramists, etc.	Stone walls	Bike lanes		Quaint	Sidewalks
	Lighting			Homey	New signs that will alert people to Blowing Rocks presence

Figure 42. Chart of interview analysis results
Table Generated by K. Havens



APPENDIX E

On-site Observations

As part of the preliminary research, the gateway team physically observed the three sites within Blowing Rock designated as gateway points along US 321 in order to make assessments for future designs. The observations made at the Chetola entrance reflected a sense of over-crowding and poor signage. Many of the Chetola statements refer to “visual eyesores,” “no town-centered directional signage,” and “unwelcoming.” The ongoing construction in this area also elicited many observations about the stone wall which mirrors the stone-

work theme found throughout the town.

Observations made at the Sunset and US 321 intersection suggested that the site is lacking in functional pedestrian space, such as bike lanes and crosswalks, although US 321 is in very close proximity to the businesses situated on the highway.

The Broyhill entrance along US 321 elicited similar responses to that of the two previous sites; lack of both town-centered signage and functional pedestrian space.



Figure 43. Directional sign in Blowing Rock
Photo courtesy of: Z. Swick, 2014



Figure 44. US Highway 321/221 intersection
Photo courtesy of: P. Buathier, 2014