Capturing the Past:
Connecting Communities on the Miami & Erie Canal

Rebecca A. Schmiesing
L.A 414 Fifth Year Comprehensive Project
Department of Landscape Architecture
College of Architecture and Planning
Ball State University
Muncie, IN 47306
adeline79@hotmail.com
Capturing the Past:

Connecting Communities on the
Miami & Erie Canal

Rebecca A. Schmiesing
LA 404 Fifth Year Comprehensive Project
Department of Landscape Architecture
College of Architecture and Planning
Ball State University
Muncie, IN 47306
April 25, 2003
Advisor: Ron Spangler
Instructors: Darren Reno, Ron Spangler
Acknowledgements

To every individual who helped me in gathering my information and for providing me with information about the Miami & Erie Canal.

To Jeremy Miller and the rest of my classmates for putting up with me and supporting me through my thesis.

To my Mom and Dad for helping run to places and for supporting me in everything I try and accomplish in my life.

To Ron Spangler for being my advisor and guiding me through the entire thesis project.
Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>i</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>2</td>
</tr>
<tr>
<td>Ohio Canal History</td>
<td>3</td>
</tr>
<tr>
<td>Site Context</td>
<td>6</td>
</tr>
<tr>
<td>Site Description</td>
<td>8</td>
</tr>
<tr>
<td>Goals &amp; Objectives</td>
<td>13</td>
</tr>
<tr>
<td>Assumptions</td>
<td>14</td>
</tr>
<tr>
<td>Delimitations</td>
<td>14</td>
</tr>
<tr>
<td>Design Process</td>
<td>15</td>
</tr>
<tr>
<td>Inventory &amp; Analysis</td>
<td>16</td>
</tr>
<tr>
<td>Detail Inventory &amp; Analysis</td>
<td>19</td>
</tr>
<tr>
<td>Program</td>
<td>23</td>
</tr>
<tr>
<td>Concepts</td>
<td>24</td>
</tr>
<tr>
<td>Master Plan</td>
<td>28</td>
</tr>
<tr>
<td>Trailhead</td>
<td>30</td>
</tr>
<tr>
<td>St. Rt. 119 Intersection</td>
<td>33</td>
</tr>
<tr>
<td>Alley in Minster</td>
<td>35</td>
</tr>
<tr>
<td>Conclusion</td>
<td>37</td>
</tr>
<tr>
<td>Bibliography</td>
<td>38</td>
</tr>
</tbody>
</table>
Abstract

One third of United States adults (65.9 million) took a historic or cultural trip in 1995. (Ohio Division of Travel and Tourism) Throughout the United States, communities and regions are losing their identity and their heritage due to a variety of different reasons from urban sprawl to lack of maintenance. Due to the disappearance of the cultural landscapes, today’s generations and their future generations can lose the knowledge and the pride associated with their hometown or region. Through the celebration and representation of our history through heritage trails, regions and communities can retain their character and individuality for future generations.

Heritage trails became part of the greenways idea when greenways started to link people to heritage areas and places. As a result, greenways became heritage trails. With the rich culture of the country, there is an increasing opportunity for designers to reach communities through their heritage and backgrounds. This study attempted to use the guidelines of greenways, interpretation, and education to design a heritage trail along a canal heritage corridor. Heritage corridors across the country are being used as models to demonstrate the guidelines and design techniques for the celebration and preservation of cultural landscapes in the United States. The models in this study included the Heritage Trail in Dubuque County, Iowa, the Illinois & Michigan Canal National Heritage Corridor, the Chesapeake & Ohio Canal National Historic Park, and Delaware & Hudson Heritage Corridor, Port Jervis, New York.

The heritage trail is located along the Miami & Erie Canal between the towns of New Bremen and Minster, Ohio. New Bremen and Minster are located on the summit of the Miami & Erie Canal, which spanned from Lake Erie to the Ohio River. The canal was used for transportation, industry, and the settlement of interior parts of Ohio. This study incorporated the region’s history including not only the canal but also the communities’ history, and possible connections to city and rural residents through a heritage trail. Education and interpretation played a large role in connecting the area on the heritage trail. This study consisted of a master plan for a larger portion of the Miami & Erie Canal as well as a more detailed segment for New Bremen and Minster.
Introduction

Communities and regions are losing their identities and heritage due to a variety of different reasons from urban sprawl to lack of maintenance. Through this loss, today's generations and future generations are losing their knowledge and pride of where they came from. However, there is an increased interest in historic and cultural areas. According to the Ohio Division of Travel and Tourism, one third of U.S. adults (65.9 million) took a historic or cultural trip in 1995.

With the increased interest in heritage areas, communities and regions are able to celebrate and preserve their heritage easier. In order to celebrate and preserve the heritage of an area, this study links communities along a heritage canal corridor by creating a heritage trail. Not only does this study link communities, this study also explores opportunities to connect town residents, rural inhabitants, and tourists together. While connecting communities and people, this study incorporates a safe, efficient, and recreational designed trail that explores opportunities to provide education through interpretation, nature studies, guided tours, etc.
Ohio Canal History

With the establishment of statehood in 1803, Ohio was isolated from the East, the market for goods. The canals helped to provide the access to the East, and through this connection, people began settling in the interior of Ohio.

Prior to the construction of the canals, goods were shipped by the National Road, but the road was very hard to reach due to condition of the roads. The roads were mainly muddy trails. The Ohio and Mississippi Rivers to New Orleans were the only way to transport goods, but most settlers could not afford to travel the distance it entailed. As a result, people did not have a connection to the outside world, and without it, the Ohio interior would lay vacant.

The Erie Canal in New York became an inspiration for the canals in Ohio. The Erie Canal would bring the commerce of the West to New York Market. With the success of the Erie Canal in New York especially the price given for goods, Ohioans wanted to tap into its market. At the forefront of canal system in Ohio was Governor Ethan Allen Brown of Cincinnati. In the early 1820s, he lobbied for the system, and through this process, he became known as the “Father of Ohio’s Canals.” (Gieck, XIII) With Brown’s support, the Ohio legislature created a canal commission of seven individuals to study potential routes from the Ohio River to Lake Erie. A key element in canal location was the access to natural waterways to keep the canal channel full of water. In Ohio, the routes were limited to 3 areas: East side with the Muskingum, Tuscarawas, and Cuyahoga Rivers, Center with the Scioto and Sandusky Rivers, and the West side with the Great Miami, Auglaize, and Miami Rivers. (Gieck, XIV)

After determining the potential canal routes, the commission hired James Geddes, an Erie Canal engineer to survey the routes. He concluded that the Scioto and Sandusky Rivers did not have efficient amount of water to support a canal system. After surveying the land, the state
legislature in 1825 authorized the construction of the Ohio and Erie Canal. The first shovelful started the process for the Ohio and Erie Canal on July 4, 1825, and later on July 21, the Miami Canal was started. The first sections to be built were located nearest to the markets. Along with determining the routes, financing was also critical. Some of the financial solutions were canal bonds and donations of land by private owners or Congress. As money became available, more canal sections would be built.

The canals were built by a few local residents, but the majority was Irish and a few German immigrants. The labor force worked for 30 cents a day and gill of whiskey. The channel they built was usually 28 feet wide on the bottom and 40 feet wide at water level with a minimum of four feet deep. With these dimensions, two canal boats could pass easily. Along with the channel construction, there was also a towpath of approximately ten feet. In order to minimize blockage of the canal, there was twenty-foot clearance needed on each side. (Gieck, XV) Several other features helped to support the canal system. These included the locks, the lock gates, aqueducts, culverts, reservoirs, and canal boats.

The Ohio & Erie Canal opened its entire length of 308 miles in 1832, and the Miami & Erie Canal was completed in 1845. Unlike the Ohio & Erie Canal, the Miami & Erie Canal was not envisioned as one master plan. (Gieck, 124) The Miami & Erie Canal had three separate parts: the Miami Canal, the Miami Extension Canal, and the Wabash & Erie Canal. The Miami Canal was constructed between Cincinnati and Dayton and finished in 1828. The Miami Extension began in 1833 and finished in 1845. The Miami Extension connected to the Miami Canal in Dayton and the Wabash & Erie Canal. This portion of the Miami & Erie Canal contained the summit and three reservoirs that feed the system. The reservoirs were Grand Lake St. Marys, Loramie and
Lewiston reservoirs. (Gieck, 13) The final section of the Miami & Erie Canal was the Wabash & Erie Canal. The link with the Wabash & Erie Canal provided the connection to Toledo and Lake Erie. In 1845 for the sake of convenience, the system was named the Miami & Erie Canal. (Gieck, 126) With this recognition, Ohio could advertise that it had a second major canal system ranging about 250 miles in length. (Gieck, 126)

The canal system in Ohio thrived from 1827 to 1850. (Gieck, XVIII) In competition with railroads in the 1950s, the canals started to decline. Railroads were easier to build, faster, and could go anywhere in the state. They were not limited to areas that had enough water to support them. Not only did these railroad elements compete with the canal system, Ohio also developed more miles of lines than any other state. (Gieck, XVIII) Thus the railroads overshadowed the canal systems. As a result, the canal fell into disarray and the state could not afford to repair the system. The final blow to the canal system was the statewide flood of 1913. (Gieck, XIX) The remaining structures were wiped out.

The state of Ohio flourished on the canal systems. The canals opened up the interior to new markets and to new settlers while adding money to the internal economy of the state. They also helped to foster agriculture and industry. Along with these elements, the canal systems also created a transportation network between the Ohio River and Lake Erie. (Gieck, XVIII)

Miami & Erie Canal Profile
Site Context

The Miami & Erie Canal travels along the western side of the state of Ohio, and it is considered the second-longest contiguous portion of canal that remains in the United States. (MECCA) The canal opened the region to settlement while also providing access for farmers to the outside markets. The entire canal stretches from Cincinnati and the Ohio River to Toledo and Lake Erie. It rose 512 feet to New Bremen on the Loramie Summit. One of the feeder reservoirs built to help supply the southern portion was the Lake Loramie. From New Bremen, the canal descended 395 feet to Lake Erie. This northern section between New Bremen and Lake Erie was fed by Lake Loramie and another feeder reservoir, Grand Lake St. Marys. In the stretch between the two feeder reservoirs, thirteen locks were constructed, but the entire canal contained a series of 105 locks. This segment of canal from Lake Loramie to Grand Lake St. Marys is approximately thirteen miles. Along the canal between Grand Lake St. Marys and Lake Loramie, there are four communities. Two are associated with the feeder reservoirs. St. Marys is adjacent to the Grand Lake St. Marys while Ft. Loramie is just south of Lake Loramie. The two other communities are New Bremen and Minster.

The landscape character of the region surrounding these communities and the canal include geological, cultural, agricultural, historic, and recreational elements. The corridor is included mostly within Auglaize County and a small portion in Shelby County, and it passes through the landform called the Till Plains. (MECCA) The Till Plains consist of mostly flat topography. Along with the flat topography, the cultural landscape centers around agriculture and the heritage of the area. The people are predominately of German descent with some French and Irish. Most of
the families in the area can trace their roots back to Europe. Alongside the German ancestry, there is also religion. The region is predominately German Catholics with several other Christian denominations. The corridor crosses the Land of Cross-Tipped Churches Scenic Byway in Minster.

The region also contains historic and recreational elements. Historic sites range from National Registrar listings to lakes. Many of the National Registrar listings are churches within the area. Along with the historic elements, there are also recreational opportunities within the area. Some of these opportunities are Grand Lake St. Marys, Grand Lake St. Marys State Park, and Lake Loramie State Park.

The Miami & Erie Canal connects this region and communities of Ohio together, but it also connects the region to other parts of the world through the designation of the towpath. The towpath along the canal is part of three major trail systems; Miami and Erie Trail, Buckeye Trail, and the national North County Scenic Trail.
Site Description

Within the thirteen-mile segment of Miami & Erie Canal between the two reservoirs, there is a section of three miles connecting the two communities of New Bremen and Minster. These two communities lie on the Loramie Summit, the highest point along the entire canal corridor.

New Bremen is a small town of about 3,000 people, and the town is located along the intersection of State Route 274 running east and west and State Route 66 running north and south. State Route 66 along with the canal connects the communities along the corridor. Along with the intersection of these two main roads, the canal also intersects at this point. This intersection is the part of the downtown area, which proceeds south and east along the two state routes. The buildings in downtown are being restored to the original facades in hopes of retaining the character of the town. At the corner of this intersection sits a small community plaza and a parking lot. Lock One of the Miami & Erie Canal lies along the edge of the parking lot. The lock is where the water disappears underground until the canal reappears on the other side of the parking lot and the road. The parking lot continues along the west side of lock and canal for about one block. The parking lot serves the public library located on the plaza and the community at large. New Bremen also holds a variety of activities in this space like their annual community picnic. Near the end of the parking lot, a brick structure sits on the canal. The towpath lies along the east side of the canal, and it currently forms a four-foot trail paved with crushed stone. Just adjacent to the towpath is the Lions Club Park with playground equipment, shelter house, and open space. The parking lot, the park, the lock, and the canal stretch across one block in New Bremen. Surrounding these areas are businesses and homes.

Proceeding along the canal, the next block contains another park with a gravel parking
lot, open space, shelter house, and play equipment. The park is positioned between the canal and homes. On the other side of the canal, the trail along the towpath continues with the west side lined with trees. The trail is marked by the blue blazes that represent the blue blazes of the Buckeye Trail. The gravel trail continues through the community. Along the canal and towpath trail, there are several residences abutting up against it. The canal continues into the countryside and agriculture fields replace the homes. The trail continues along the canal over country roads until it reaches the town of Minster. On the edge of Minster, there is an earthen dam that was built to solve a conflict between the two towns about the water quality. Along with the earthen dam, the gravel trail stops. The trail continues along a roadway. Along this stretch, there is a connection across the canal to the Minster community and school. In Minster, the trail jogs back and forth from one side of the canal to the other. Through most of Minster, the trail follows along either roadways or alleys. The canal is lined with homes and businesses. Along with the homes and businesses, there are a couple of structures that relate directly to the canal and canal era. There is also deduction in the amount of trees along the canal through Minster heading south. On the southern edge of Minster, a roadway follows the canal again, but the trail becomes a grass lawn adjacent to the canal bank. Across from the road, there is a large golf course. After the golf course, the grass trail continues along the Miami & Erie Canal into the countryside on its way to Ft. Loramie and the reservoir.
Plaza and Parking at the Intersection

Existing trail adjacent to park and canal

Old Building Adjacent to canal

Canal from Bowstring Girder Bridge

Historic Building from the South

Homes line the canal's East edge
Canal banks covered with vegetation

Dutch Mill, sits on canal

Alley adjacent to canal

Canal leading from Minster
Goals & Objectives

Enhance the existing multi-use trail from New Bremen to Minster

- Improve the trail for a variety of users: bicyclists, walkers, joggers, and other non-motorist users.
- Provide trailheads for ease of access and visibility
- Create access points and resting points for the users
- Increase safety in the system through traffic calming devices, signage, and pavement
- Create an unifying theme

Celebrate the heritage of the canal and the communities

- Preserve the canal and its towpath
- Restore and reuse historic buildings and structures
- Improve the quality of historic elements along the system
- Educate through signage, pamphlets, kiosks, and outdoor displays

Link surrounding communities and assets

- Identify street and path connection to the communities
- Connect communities to the trail through sight, signage and information
- Use materials to unify the trail system and the communities
- Link to community assets like schools and parks through bridges and sidewalks.
Assumptions

In this study, the design provides a conceptual master plan on how the trail system could be developed by only taking a segment of the entire canal system.

There is adequate funding through grants from the government and other organizations and private individuals.

There is community participation and input in the design of the trail. Community participation will be a crucial and essential element in the success of the heritage trail.

After construction, there will be efficient resources to maintain the corridor, the trail and the canal through the communities and other organizations.

Easements will be obtained where appropriate for various amenities for the heritage trail system.

Delimitations

This study will not go to the next level which is construction documents. It will be completed under a design firm that will take the study to completion.

This study will not include supervision over any implementation of the project. It will be completed by the design firm and the agencies involved.
Design Process

The design process began with the selection of an area that filled the criteria of a canal/railroad right away that could make a heritage trail successful. With the site selected, an understanding of the corridor was needed from the existing conditions to the possibilities of the entire corridor. These ideas are presented in the following inventory and analysis sections. Through understanding the site and goals, two concepts were developed for the corridor. From these two concepts, a final concept was constructed incorporating parts of each. Following the development of the final concept, a master plan and key features were designed and portrayed through plans, sections, and sketches.
Site Inventory & Analysis

Landuse

Trail has the potential to reach a variety of people from workforce to the residents of the communities.

Multiple experiences are achieved through the different landuses: agriculture, commercial, residential, industrial, and open space.

Possible links to a variety of users

Legend
- Roads
- Miami & Erie Canal
- Residential
- Commercial
- Industrial
- Open Space
- Agriculture
Site Inventory & Analysis

Community Features

The corridor is in close proximity of different features.

The corridor creates an opportunity to connect features within the community.
Site Inventory & Analysis

Pedestrian/Vehicular Conflict Points

State Route Intersections have the greatest problem for pedestrians.
Segment of Canal crosses State Route 119

Neighborhood intersections cause minor conflict during certain times of the day.
Minster: 6 crossings
New Bremen: 1 crossing

With the street crossings, signage is needed to make pedestrians and vehicles

Legend
○ Major Conflict
○ Minor Conflict
The area in New Bremen appears to have potential for a trailhead due to the features of the surrounding area. These features include the direct access to a major intersection of St. Rt. 66 and St. Rt. 274, the Lions Club park, Lock 1, New Bremen Library, and the historic buildings.
Circulation and Parking

There is a strong visual connection for the largest concentration of pedestrian and vehicle traffic.

Ample parking for trail/trailhead use exists surrounding the corridor.
Detail Area: Inventory & Analysis

Vegetation

The majority of the vegetation lies in the Lions Club Park adjacent to the canal.

The existing vegetation creates shade opportunities in this portion of the canal.
Detail Area: Inventory & Analysis

Community Features

With a concentration of community features, this area creates an opportunities to draw and education people.

These features listed below have the potential to provide direct visual connection to corridor.

Community Features

Lock 1
Bowstring girder bridge
Library
Lions Club Park
Canal Building
Canal House
Program

Multi-use Trail

- Provide a trail for bikers, walkers, and other non-motorists
- Accommodate the needs of the users: seating, shade, drinking fountains, restrooms, etc.
- Provide a 10 feet asphalt trail and narrow it when needed
- Provide an visual entry/trailhead to the trail for the users
- Use educational, directional, and location signage to assist trail users in wayfinding
- Use separation barriers between the trail, canal, and neighborhoods for safety concerns
- Use appropriate mechanisms for safe pedestrian, street crossings
- Organize, and enhance existing parking in New Bremen
- Emphasize the culvert crossings by incorporating decorative elements
- Incorporate an unifying language through signage and pavement

Heritage

- Use educational and interpretive signage to portray the heritage
- Use symbols, plaques, and outdoor displays to celebrate the history and importance of the area
- Incorporate the existing cultural features such as the lock into the trail system
- Use existing buildings for amenities like restrooms and for the portrayal of the heritage of the area

Linkages

- Use existing sidewalks in the communities to provide access to the trail
- Provide directional signage to the community features including schools, parks, cultural features, and the residential neighborhoods
- To elaborate on and design trail crossing of canal from one side to another
Concept 1: Two Trailheads

Concept 1 focuses on incorporating two trailheads within the three mile canal corridor. The two trailheads are located within both communities. Connecting the two trailheads is the proposed trail. The trail follows the canal with a canal crossing once along the route. Approximately half way, there is a access point which uses the existing park. To gain access to the trail from either side of the canal, there are main crossings that are emphasized by the bridge structure. These crossings also distinguish connection points to the surrounding communities.

Opportunities

Two Trailheads for each community
New Bremen Trailhead
Most visible location
Ample existing parking
Located in the village core
Central Access Point
Trail switches sides once

Constraints

Vacate Canal 45 for trail use
Affect 3 households with removal of road

Legend

Trailhead
Access Point
Linkage Point
Trail
Miami & Erie Canal
Direction of Linkage
Concept 2: One Trailhead

Concept 2 incorporates one trailhead located where there is a high concentration of historic and community features. The trail system connects the communities together, and crosses the canal twice. Along with the trailhead, there is also an access point located at the intersection of 119. The connections/crossings are the same as Concept 1 due to the existing features of the area.

Opportunities

Reuse of historic structure at trailhead
Ample Parking for trailhead in New Bremen
Affect 1 household versus 3
Trailhead located near a less congested road crossing

Constraints

Trailhead located only in New Bremen
Trailhead has less exposure to highest concentration of vehicle and pedestrian movement
Trail switches sides twice due to the amount of public land currently available

Legend

- Trailhead
- Access Point
- Linkage Point

- Trail
- Miami & Erie Canal
- Crossing
- Direction of Linkage

To Ft. Loramie
Final Concept

Concept 1 and Concept 2 combined to develop the final concept on the preceding page. The concept includes both trailheads. The trailhead in New Bremen is located at Lock 1 and the intersection of the two state routes: 274 and 66. The trailhead for Minster is located on the southern end. A ten foot asphalt trail connects the two trailheads. Starting in New Bremen, the trail follows the old towpath and the existing gravel trail located on the west side of the canal. As the trail reaches State Route 119, it crosses the canal before the roadway. The reason for the crossing of the road is the existence of roadway (Canal 45) along the west side of canal. The trail continues on the east side of the throughout the rest of the site. At Minster Community Park located approximately in the middle of the corridor, an additional access point is provided for ease of trail users. Throughout Minster, the trail is positioned between the canal and the alley. The trail continues on southward through Minster, and hopefully will continue the entire length of the canal.
Master Plan

The master plan incorporates the ideas of the final concept into physical form along with the existing features that were incorporated in the design of the heritage trail. As mentioned in the final concept, the trail system includes trailheads located on the northern and southern points, bridge crossings and traffic calming devices at major intersections, and directional and interpretative signage. Within the three mile corridor, three key areas are designed in detail to help show the character and feeling of the trail system. The three key areas include the trailhead located in New Bremen, State Route 119 crossing, and the trail and alley relationship. Other areas include the trail through the countryside. Through the sketches and sections immediately following the master plan, the trail character through the countryside is represented.
A Bowstring girder Bridge

Park Trail Canal Parking
10' 40'

Trail adjacent to Agricultural land

B Agriculture Land Trail Canal
10' 40'
Trailhead

The trailhead in New Bremen is one focus of the three mile heritage trail. This location became ideal for a trailhead due to the surrounding conditions like the multiple historic features, existing parking, and the visual connection to a large amount of people. (See Inventory and Analysis)
The focal point of the trailhead area is the canal and the preservation of its character. To reinforce the canal, two pools are created to continue the water. Through these two pools, the canal appears to continue northward instead of disappearing completely under the parking lot and State Route 274. These pools also help to maintain the view of the historic lock and the canal from people passing by. Another element helping to maintain the view of the canal is the placement of the trailhead arbor. The arbor is positioned west of the pools to help to maintain the view, but also within close proximity to relate to the canal and the existing parking. The actual structure of the arbor relates back to the canal era helping to portray the original canal character. The arbor is modeled after the Monroe Bridge that existing within the canal era close to this location. The arbor structure is carried into the pavement to create a unify appearance to the trailhead area. The pavement is concrete with brick striping to make a transition between the trail and the current sidewalks. It also brings the existing materials from the plaza into the trail system. In order to connect the arbor and trail to
the existing parking, the pavement crosses the two pools. Along with connection to the surrounding context, the arbor also provides seating, shade, drinking fountains, bike racks, and informational signage for the trail user as the began or end their journey. For this entire area to work, the parking lot entrance was reduced to include a plaza for pedestrian and vehicle safety. From the arbor, the trail continues southward along the lock and the original towpath. It continues along the original towpath in New Bremen except at the beginning where it is adjusted for ADA access for a short distance. The towpath is represented in this area as a stepping stone path. The towpath/stepping stone path was used by the animals who pulled the boats. The last element of the New Bremen area is the removal of the drive and parking behind the library. With this removal, the connection between the library and the trail system is enhanced while also increasing safety for the users of the entire area.

Through the trailhead design, the canal becomes a part of the New Bremen community once again. This is achieved through new elements and the existing elements.
St. Rt. 119 Intersection

The second key area is the crossing at State Route 119. At this location, the trail crosses the canal to the west side due to the position of Canal 45 along the canal banks. The crossing is placed sixty feet from the road, and within this sixty feet clearance the trail has ample room to approach 119 at a right angle. These features help to increase safety for the pedestrian and the vehicle.

Along with the location, three additional features help to create the space. The bridge crossing the canal is the first. It is modeled after the existing metal and wood bridges to create a
unified language through the corridor. Another feature used to unify the corridor is the traffic calming devices. Thirty feet from the roadway, a brick strip is placed in the asphalt trail to alert trail users of the roadway ahead. The brick pattern is also carried into the intersection point between the roadway and the trail. Through the change in roadway pavement, vehicle users are made aware of the trail crossing and the pedestrian. Another traffic calming device is the bollards on the trail to provide a stopping point for the trail user and to prevent vehicles from entering the trail system unless for maintenance purposes. Warning signage is also used on both the trail and the road.

The third feature is a fence row and vegetation to separate the trail users from the private land adjacent to the canal. This allows for both privacy and protection for all parties.
Alley in Minster

The trail through Minster follows the west bank of the canal. It is positioned between the canal and the existing alley. The trail sits two feet off the alley to create a separation between the user groups. When the space between the canal and the alley does not have sufficient space for the requirements of a two feet buffer and a ten feet trail, the trail is reduced and/or a fence is provided along the edge. The fence allows for additional space to used for the trail while providing for safety concerns.

Designated street crossings throughout
the corridor are emphasized with railings that are modeled after the existing bridges along the corridor. One of the designated crossings is the 3rd Street crossing that connects to Minster's downtown.

The last feature of this area is the traffic calming devices. Similar to the intersection at State Route 119, the brick strip in the trail, the brick through the roadway, bollards, and signage are used for pedestrian and vehicle safety. The one difference is the incorporation of the town’s sidewalks into the design. The entrance brick to the trail allows the concrete sidewalk to flow into the trail system. With the blending of the materials, the trail and the sidewalks integrate together instead of being separate units.
Conclusion

The importance of trail systems for recreation and education has developed across the country. Like many other studies across the country, this project represents the ability to incorporate the history and culture of rural Ohio into a heritage trail for everyone to enjoy.

Throughout this thesis project, the main goal was to create a heritage trail along the Miami & Erie Canal, but other goals surfaced. One was the grasping the project types that the author loves to work on. All projects before this one were interesting and taught a variety of ideas, but this thesis project brought everything together into a challenging project. The project also involved and benefited the community of New Bremen and Minster.

Throughout the thesis process, ideas changed and evolved, but two elements stayed constant. Excitement was essential to the entire project. Without it, the project would grow stale and boring. Whenever these ideas seem to pop up, revisiting the site always seemed to show the importance of the entire project. The second element was the ability to enhance the community that the author grew up. Not only did knowledge of the area help with the project, but the ability to affect something that was everyday to the author was a driving factor in designing a heritage trail.

These two elements helped to fuel the project, but the author never stopped learning about various aspects. Community involvement was one of these many aspects. Only with community help and support can a trail system be successful and unique. Another aspect was the importance of history in our lives. Through new design respecting the past, elements of our past can be further enjoyed and passed to future generations instead of being lost to the pages of a book.


Online Resources

“D & H Canal and Gravity Railroad Heritage Corridor; Port Jervis Branch.”
http://www.portjervisny.org/delaware%20&%20hudson%20canal.htm (September 19, 2002)

“ C&O Canal National Historical Park, The Rise and Fall of the Great National Project.”
http://www.nps.gov/choh/co_hist2.htm (October 10, 2002)

Ohio Department of Natural Resources, Division of Water Canal Lands, “Miami & Erie Canal Plat Maps by County.” http://www.ohiodnr.com/water/canals/meplats.htm (October 1, 2002)


Interviews

Personal communication, Steve Dorsten, Canal Maintenance Supervisor, Ohio Department of Natural Resources, Division of Water, Walk through along the Miami & Erie Canal, Auglaize County, Ohio, November 12, 2002.

Personal communication, Benjamin Richard, Director, Miami & Erie Canal Corridor Association, Walk through along the Miami & Erie Canal, Auglaize County, Ohio, November 12, 2002.