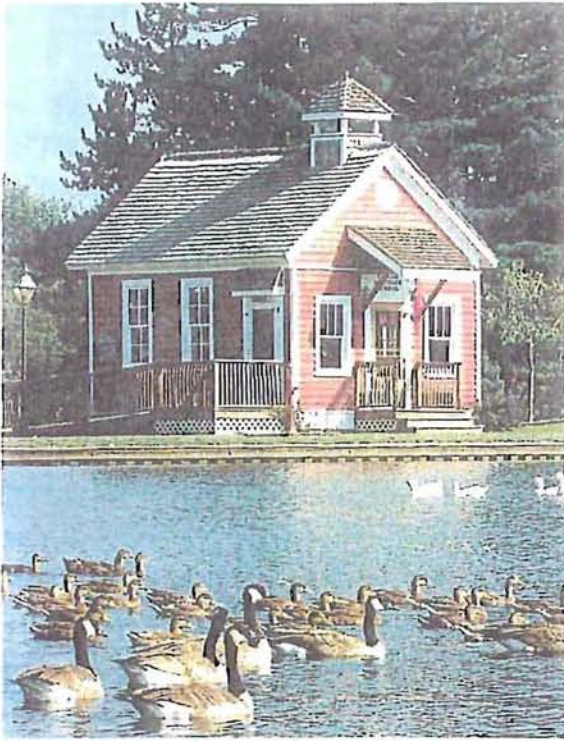


PROJECT
EXAMPLES

MCKenna
ASSOCIATES
I N C O R P O R A T E D

CITY OF TAYLOR
HERITAGE PARK
PETTING FARM

HERITAGE PARK



SCHOOLHOUSE OVERLOOKING THE LAKE



OLD CHURCH RESTORED BY YOPS & WILKIE



GAZEBO SHOWING LAKE, SCHOOLHOUSE AND MILL

Heritage Park lies in the center of Taylor. It is always busy and is a source of pride for residents. It is one of the most recognizable places in town to outsiders because people come here from all parts of Downriver.

Some of the parks features include a large lake, walking and biking trails, soccer and baseball fields and picnic areas. Many of the buildings are historic to Taylor, hence the name Heritage Park.

Yops & Wilkie has provided the park with many of its replica buildings designed to evoke the history of Taylor. The park is always expanding to include more nature areas and attractions. The new petting farm is the latest addition to the park adding activities for the whole family.



THE OLD MILL HAS A WORKING WATER WHEEL



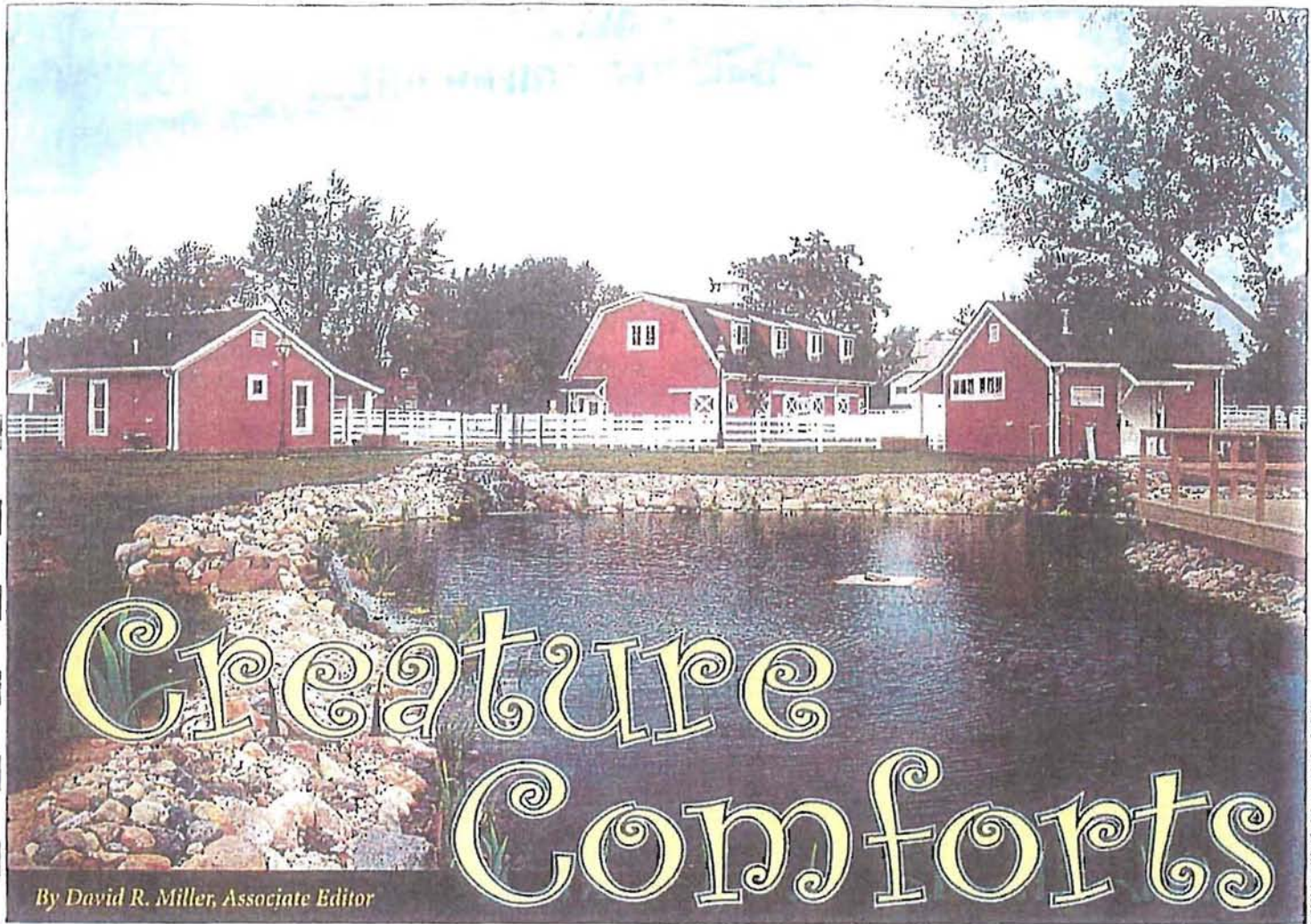


PHOTO: JIMMY CAYLOR FOR ENR

Heritage Park Petting Farm, Taylor

User comfort is an important goal with any facility, but efforts to meet this goal are complicated by human variation. A ceiling lighting fixture, for example, can be ideally placed for one person while another person will need to duck to avoid hitting it. Some users like to feel the coolness of air conditioning on their skin while others do not. Despite these variations, dedicated professionals have honed the concept of designing and building for human comfort into an exact science.

With the Heritage Park Petting Farm project, there was an added challenge associated with designing for comfort. Most of the animals that stay at the facility have four legs, instead of the human standard of two, but Heritage Park Petting Farm needed to provide a safe and comfortable environment for people and animals, alike. The number of legs of some of

the users may have doubled, but the complexities associated with accommodating every type of creature that would use the facility multiplied several fold.

A COMMUNITY RESOURCE

Heritage Park Petting Farm was intended to be a facility upon which the City of Taylor could take great pride. Situated adjacent to Heritage Park and an existing petting farm in the center of the city, Heritage Park Petting Farm was designed to offer better street visibility, updated facilities and a better connection with the existing park. The site, an existing residential area at the busy intersection of Northline and Pardee Roads, presented some of the earliest project difficulties.

"It was a tight site on two major crossroads," said Valerie Vig, vice president of J.S. Vig Construction Company. "Water, sanitary and sewer lines all had to be con-

nected within the right of way, but we never shut down the roads. We needed to allow traffic to go back and forth because Southland Mall was right down the street."

Aboveground utilities were also rerouted underground for a more attractive appearance. Timing was crucial because utility services to the surrounding area could not be disrupted. Power, cable and phone lines even crossed directly above the proposed site for the new Visitors Center. The building footprint was blocked out with temporary utility poles. Similar poles dotted the landscape as the project progressed, creating a last minute push to remove all of the inactive poles before the grand opening.

"We actually had a utility pole in the middle of our driveway when we opened," said Daniel Martinez, executive director, parks and recreation for the City

of Taylor. "It was a dead pole, we just couldn't get it taken out in time."

Simple barricades prevented the utility pole from causing a major inconvenience to incoming visitors. The minor glitch went almost unnoticed against the spectacular backdrop of the new facility.

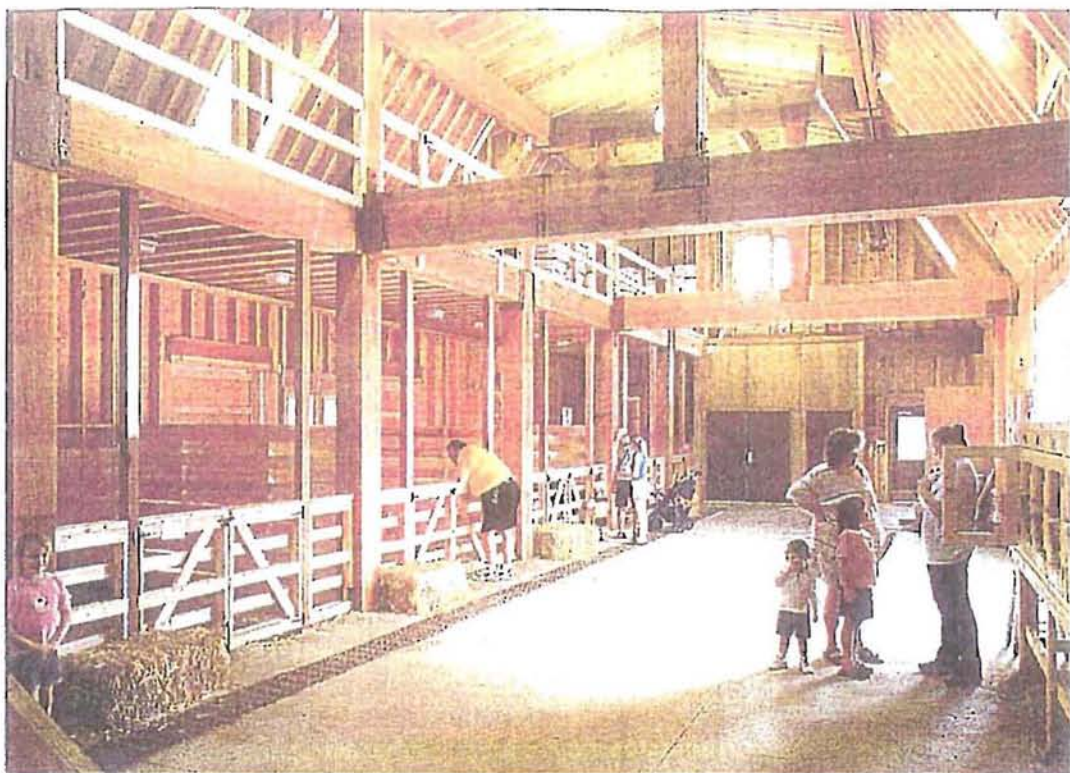
As visitors enter the park, one of the first things that they will notice is the unique silo that serves as a sign and a storage unit while reinforcing the farm feel of the facility, as well as Taylor's rural heritage. The small size of the structure belies the precision that was required for its masonry construction and standing seam metal roof.

Heritage Park Petting Farm is a unique hybrid that is part old-fashioned petting farm, and part modern educational facility. The classic white-trimmed red buildings resemble those found on a farm, but there are some key differences.

"The biggest challenge was not just mimicking farm buildings while still making things functional as well as attractive," said David Zanley, associate at Yops and Wilkie Architects, A.I.A. "They are a little cleaner and more contemporary than regular farm buildings."

Even though farm buildings stress function over form, their unique style has endeared them to many observers. Traditional rural buildings typically feature boxy additions that are created as farms and families grow. The design team for Heritage Park Petting Farm paid homage to this distinctly American trend by creating an "add-on" maintenance shed that protrudes from the rectangular footprint of the Visitors Center. The protrusion simulates a rural addition, while its cleaner lines create a more modern look. Modern construction materials like split-faced block, aluminum windows and hollow metal door frames were combined with non-structural exposed wood beams and antique rockers to create a timeless feel for the Visitors Center.

The Visitors Center features a reception desk, barrier-free restrooms and modern classroom space that can easily meet the audio-video needs of visiting teachers. A set of double doors at the front of the room provides access to a second outdoor classroom with a covered stage. Staff members



Select structural Douglas fir timbers, some up to 25 feet long, were used to create an authentic wood frame for the barn. Since there is little demand for such large timbers today, it took some time to find a supplier.

use this outdoor space to demonstrate sheep shearing and other agricultural activities. Since the space is completely separated from the indoor classroom, Heritage Park Petting Farm can accommodate multiple groups of students at the same time.

Other structures at Heritage Park Petting Farm include the Wildlife Recovery Center that provides a haven for sick and injured animals, and an outdoor restroom facility that is separate from the Visitors Center restrooms. Since most visitors are children, the project team wisely chose to include plenty of restroom space. Architecture of the restroom facility and the Wildlife Recovery Center reinforce the rural feel of the facility and both buildings feature large covered porches that can provide quick shelter against the rain.

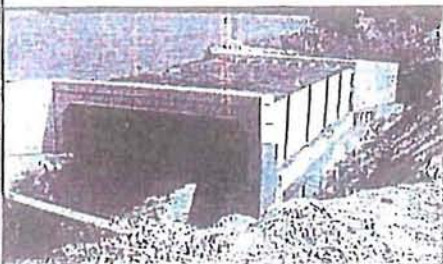
Heritage Park Petting Farm also includes a

pond that is stocked with fish and turtles. Asphalt walking paths provide access to all of the buildings, as well as the viewing platform that overlooks the pond, ensuring that children can return home with clean shoes even on rainy days. The walking paths are accentuated with old-fashioned post lanterns, making the facility equally attractive by night or day.



Modern construction materials like split-faced block and hollow metal door frames were combined with non-structural exposed wood beams and antique rockers to create a timeless feel for the Visitors Center.

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Traditional rural buildings typically feature boxy additions that are created as farms and families grow. The design team paid homage to this trend by creating an "add-on" maintenance shed that protrudes from the rectangular footprint of the Visitors Center.

Children walking the trails can also be entertained by a sophisticated sound system. Typically, the system is used to broadcast children's songs, but teachers can also use communicate with their students via wireless headsets that carry their voices over selected speakers. The needs of educators were incorporated into every element at Heritage Park Petting Farm. Even though it is fairly small, the parking lot was well planned, offering a school bus drop-off area and access from both Northline and Pardee Roads.

All of the facilities at Heritage Park are very impressive, but it is the barn that stands out on the site.

A BARN LIKE NO OTHER

Against a backdrop of green pastures and white fences at Heritage Park Petting Farm, the red barn with its distinctive gambrel roof paints a perfect picture of rural Americana to the untrained eye. Upon closer inspection, the gentle modernization of the classic American structure becomes apparent.

Typical barns possess a rugged charm from the outside. Much of this appeal is eradicated on the inside due to odors that are inherent to livestock. Since most Heritage Park Petting Farm visitors would be unaccustomed to the smell, cleanliness and ventilation were given



The barn features a traditional gambrel roof with eight dormers. Although dormers would be an unlikely addition to a typical barn, the accompanying windows greatly enhance the flow of fresh air.

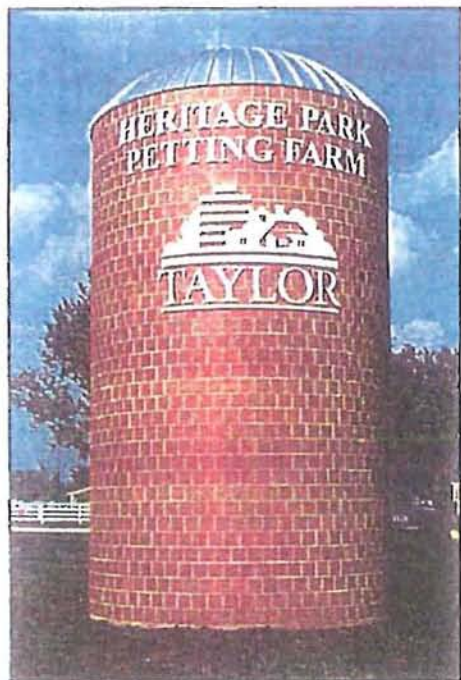
careful attention.

Although they would be an unlikely addition to a typical barn, eight dormers were added to the structure. The accompanying windows greatly enhance the flow of fresh air through the barn. The concrete floor of the structure slopes towards a centralized trench drain. A grate of over the trench allows animal waste and cleaning water to flow through without posing a hazard to feet or hooves. The 12-inch drain features an internal flushing system that allows all waste to be effortlessly evacuated.

"The drain system isn't something that you find in Farmer Joe's barn," boasted Allen Burger, director of parks for the City of Taylor.

The structure also features a radiant heating system, making barn visits much less chilling during the winter months. The heating units were carefully placed because the warmth that they provide could be detrimental to the animals that are adapted to a colder natural environment. Radiant heating units placed away from the animal pens strike a happy compromise for optimum comfort of all creatures.

Despite the interior differences between the structure at Heritage Park Petting Farm and typical barns, there are also many striking similarities. Select structural Douglas-fir timbers, some up to 25-foot long, were used to create an authentic



This unique silo serves as a sign and a storage unit while reinforcing the "farm feel" of the facility, as well as Taylor's rural heritage.

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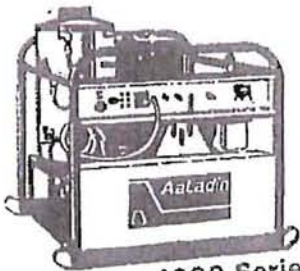


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Each stall in the barn provides access to a pie-shaped paddock. The paddocks are separated with PVC fencing because the arsenic content in Wolmanized™ wood makes it hazardous for animals to chew on.

wood frame for the barn. Ironically, this touch of realism complicated the project considerably because there is little demand for such large timbers today. Pole barns are frequently used at modern agricultural facilities, making timber framing a familiar symbol of a bygone era.

"There just isn't any demand for timbers of this size anymore, said John Wilkie of Yops and Wilkie Architects, AIA. "When you need them, they need to be special ordered and each one needs to be cut exactly to size."

Without careful planning, the long lead-time for the timbers could have adversely affected the project schedule.

"It took some time to even find a source for the timbers," said Michael O'Hara, project manager for Huron Acoustic Tile Co. "It also took several months to get the timbers onsite once we placed the order."

Because large timber construction is so rare, bolt connectors for the structural timbers needed to be custom fabricated for the project. Kehrig Steel, Inc. worked closely with Huron Acoustic Tile to create hardware that met the specifications precisely. This task was complicated because carpenters label timbers by their nominal size before planing and not by the actual size of the completed timber. The hardware would need to fit the actual size to work properly in the field and the size of each finished timber was unique.

"I'm guessing that there were between 60 and 80 unique steel connections," said

O'Hara. "The timbers were all different widths and thicknesses. The beams got a little larger at the base and smaller as we worked our way up the building. Nobody would have had usable connectors just sitting on the shelf."

The finished barn provides a comfortable home for the animals that live there. Since the animals could not communicate their needs verbally, and Dr. Dollittle was not available to translate, the project team needed to consult with experts to determine the exact needs of the animals.

THE HORSE'S MOUTH

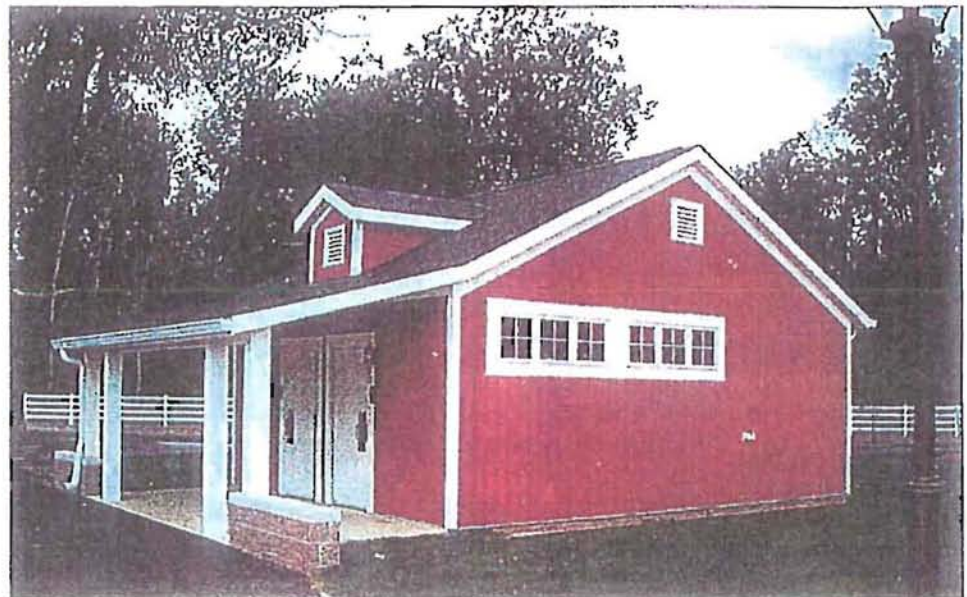
A horse is a horse, of course, of course, but the project team needed to know more than that to build a facility that would be comfortable for animals.

"We would sit around and talk about the size, shape and function of a paddock, and how that would impact a cow," said Martinez. "At some point, someone would just start laughing and we had to remind ourselves that we were actually building something. Discussions about the comfort of a cow took us outside of what we normally do."

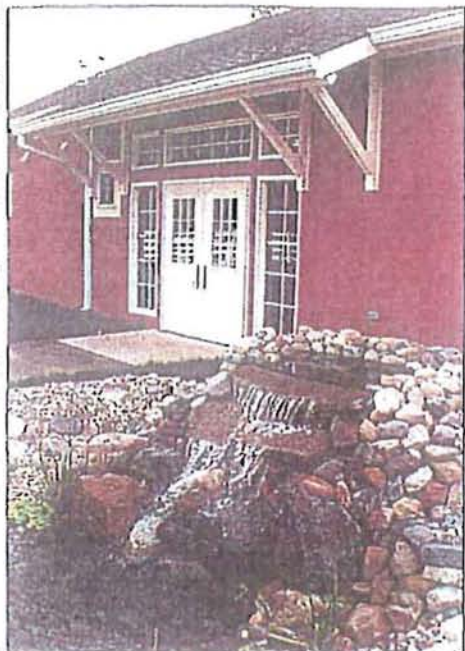
To find out how to make cows comfortable, the project team went straight to the horse's mouth. As the only university in Michigan with a veterinary medicine program, Michigan State University brought a wealth of information to the project through their cooperative extension program.

"We talked with someone at the extension program whose job was to assist farmers in building buildings for livestock," said Burger. "We learned the proper stall dimensions, pasture mixes and paddock sizes for all of the animals that we had."

By working with MSU, the project team learned that the interior stalls in their initial design were overly generous, giving the animals more room than they needed, while the attached outside paddocks were too small. With the final design, each stall in the barn provides access to a large grassy area that is separated from other paddocks by a fence. A semi-circular fence forms the outside boundary for individual



Since most of the visitors are children, the design team wisely decided to include plenty of restroom space. This restroom facility also features a large covered porch that can provide quick shelter against the rain.



This mini-stream starts at the Visitors Center and runs out to a feeding pond that includes a viewing platform.

paddocks that radiate outwards from the east side of the barn, while the west side of the barn is unobstructed to provide a clear view from Pardee Road. A service drive was added to the west side of the barn to allow for the easy delivery of bulk materials, while the pie-shaped paddocks on the east side of the barn offer plenty of room to graze and are more stimulating than a standard square pen would be.

Although all animals at Heritage Park Petting Farm are safe for human contact, new arrivals could carry pathogens to which the existing animals are not accustomed. The semi-circular fence allows new arrivals to be isolated in the two outermost pens where buffer zones prevent them from interacting with animals in the adjacent stall or paddock. This unique design also allows new arrivals to be highlighted, as the isolation paddocks are easily visible from Pardee Road.

"Presentation was always an issue when we were planing this," said Martinez. "We want to bring in different types of animals so that people can drive down Pardee Road and see llamas, camels or peacocks. The visibility is a good attention-grabber but it also means that we need to be aggressive about rotating the animals to bring new ones in."

Upon first glance, the fences at Heritage Park Petting Farm resemble the wooden fences that are commonly associated with farm living. Closer inspection reveals that the fences are actually PVC. Wolmanized

pressure-treated wood would have provided high resistance to termites and the fungi that cause decay, but the arsenic content in the wood makes it hazardous to animals that chew on it. The wood that was used at the original petting farm was safe for the animals, but it presented many other problems.

"It was a big maintenance issue," said Burger. "We were painting all of the time. The PVC also helps from a safety stand-

point. You get a lot of splinters with a wood fence."

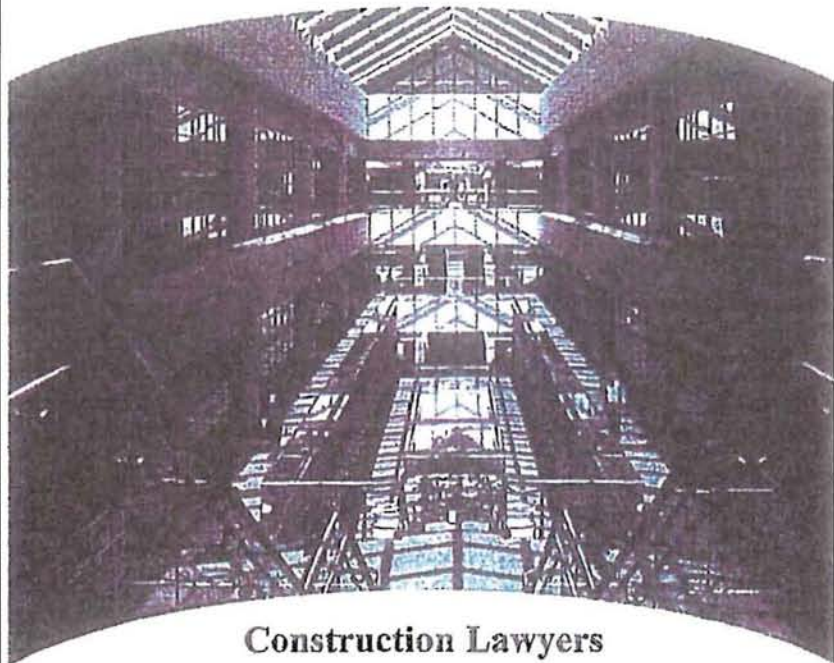
Heritage Park Petting Farm was not merely designed from the ground up for animal comfort. The commitment for animal well-being runs much deeper.

"We wanted to make sure that the animals were comfortable," said Vig. "We didn't want them to have to walk on pea-gravel, but at the same time, the paddocks needed to drain, so we put soil on top of

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Heritage Park Petting Farm is a unique hybrid that is part old-fashioned petting farm, and part up-to-date educational facility. The classic white-trimmed red buildings resemble those found on a farm, but many modern features have been added.

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pea-gravel."

Although the animals at Heritage Park Petting Farm are very comfortable in their new facility, contractors needed to get back to nature to build it. At times, this process was very uncomfortable for them.

GREEN ACRES

As a former residential area adjacent to an attractive park, the Heritage Park Petting Farm site was planted with many mature trees. Preserving as many of these trees as possible was a key project goal.

"We had a meeting to talk about which trees we could save," said Vig. "The trees that were designated to stay ended up staying. We even kept a couple of the trees that were designated for removal. We decided that we could make them work. Nobody ever wants to lose trees and we do our best to work with that."

Contractors needed to use caution when working above the fragile root system or near the drip lines that supplied water for the trees. By carefully taping off areas near the trees, J.S. Vig was able to save the majority of them. While working around the trees was a constant challenge, at least they stayed in one place. Animals at the existing petting farm presented challenges that were much more difficult to contain.

"We had to communicate with the sub-contractors to ensure that they didn't

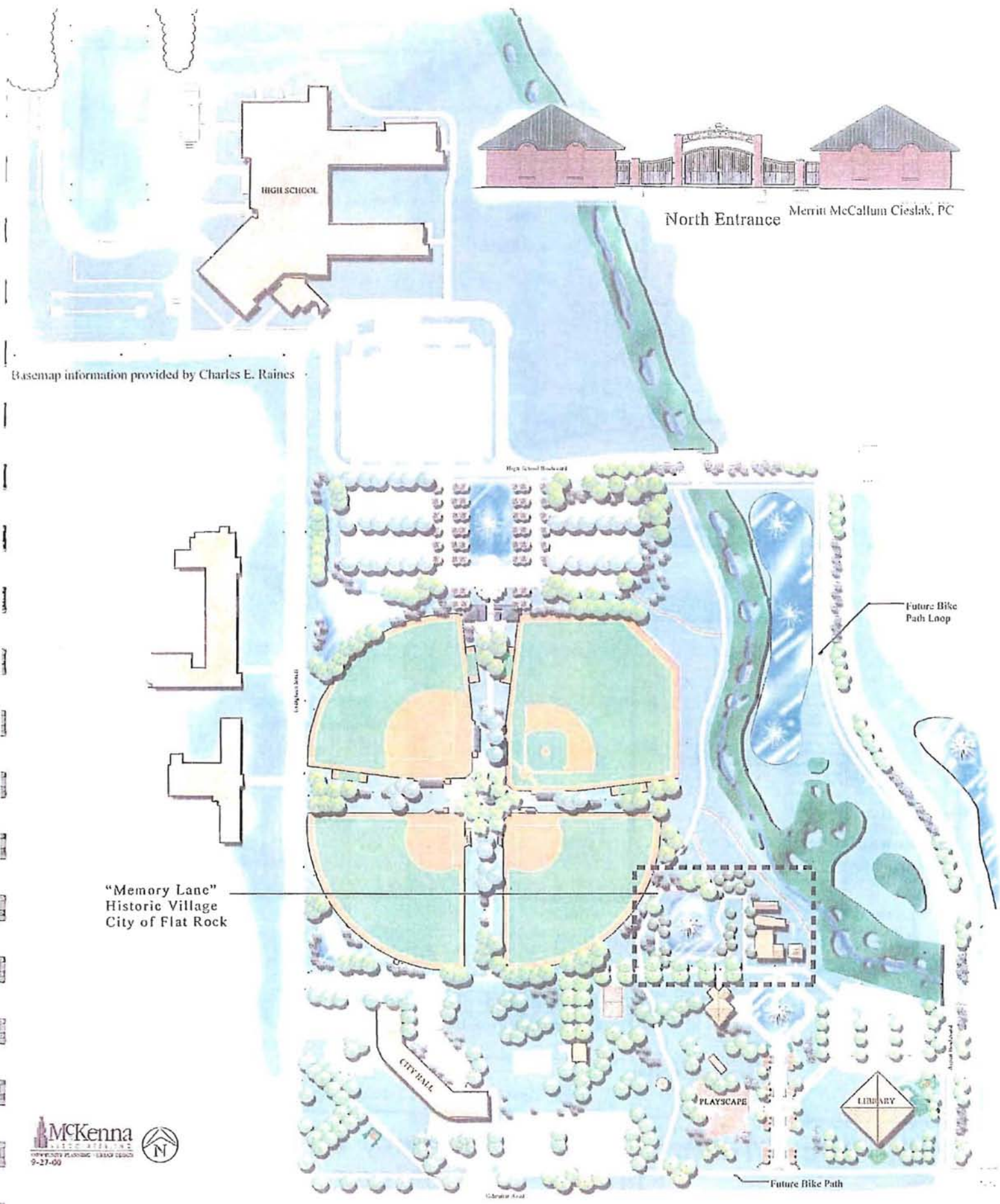
interfere with the areas where the animals were," said Vig. "They needed to understand that it would be detrimental if any of the animals got out."

Some of the fences at the existing petting farm needed to be temporarily removed during the project. Animals were shifted around frequently to keep them fenced in and out of harm's way. A gate that could be left open on one day might need to be kept closed on another. It was a complex ballet as the animals were shifted back and forth, and every contractor needed to know all of the steps.

There were a few minor mishaps. The hen that stowed away on a truck and spent the night in a contractor's garage was undoubtedly the talk of the hen house after her safe return home. Contractors were also pressed into duty to corral a large pig that escaped a pen.

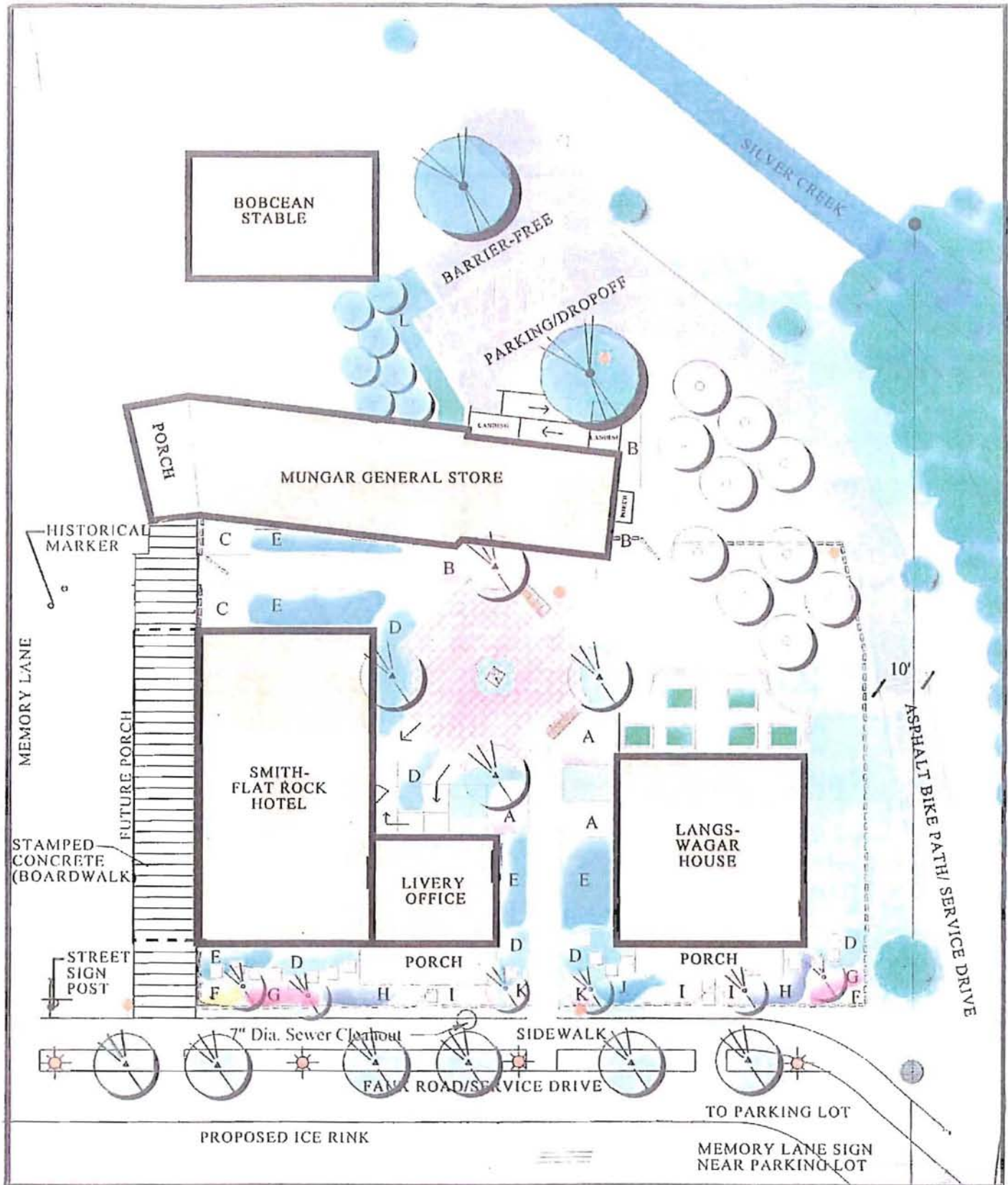
"All that I could think was, 'How do I explain to my insurance company that a pig got loose?'" said Vig.

Fortunately the pig was safely captured, saving Vig from an awkward phone call to her insurance company. Once the dust settled, the animals were left with an attractive new home that few should want to escape from. Heritage Park Petting farm will undoubtedly continue to be a source of pride for the project team, and Taylor residents, for years to come.



Basemap information provided by Charles E. Raines

"Memory Lane"
Historic Village
City of Flat Rock



Flat Rock Historic Society Memory Lane Master Plan Flat Rock, Michigan



12/19/01



Flat Rock Historic District - Site Analysis (3/22/01 Visioning Session)



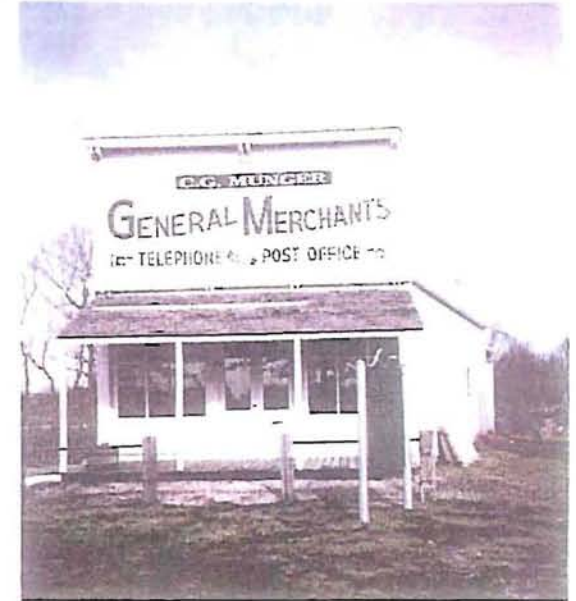
Legend	
	Victorian Garden
	Transition Areas
	Water/Floodplain
	Potential/Future Development
	Buildings
	Woodlot
	Walking Path/ Trails
	Barrier Free Accessible



Flat Rock Historical Commission's Visioning Session Group 1 - Historic Restoration



Langs - Wagar House



Munger Store/Museum



Horse Stable

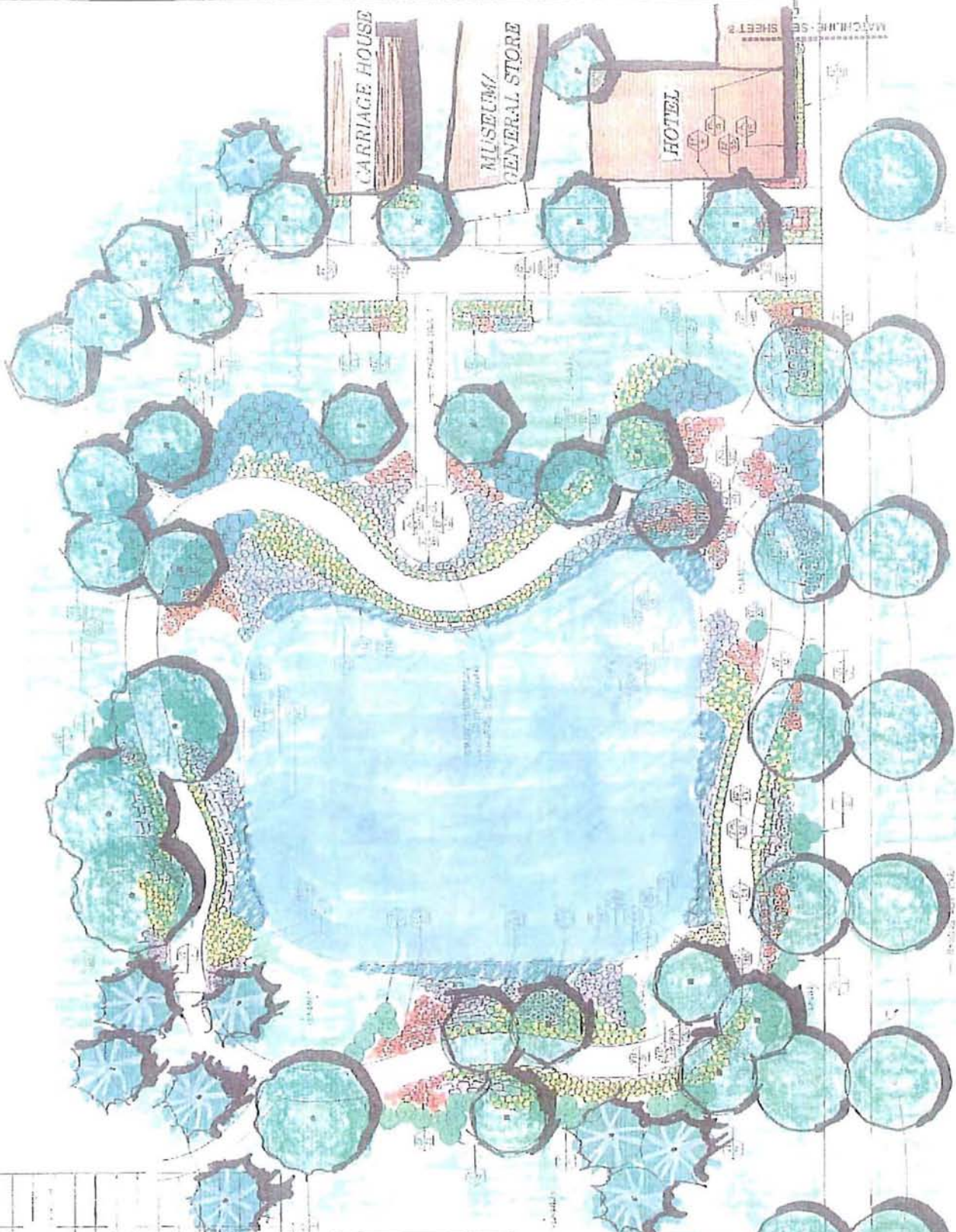


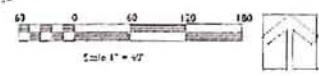
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IRRIGATION NOTES:
 The Contractor shall furnish a fully operational automatic irrigation system. System shall provide 100% coverage to all planted areas. The flow shall be controlled by a flow controller. An expansion tank shall be installed for protection of the pump. The contractor shall be responsible for the installation of the system. The contractor shall be responsible for the installation of the system. The contractor shall be responsible for the installation of the system.





PROGRAM AREAS:

- | | | |
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| <p>1. Historical Village</p> <ul style="list-style-type: none"> - Village Green - Town Hall Church <p>2. Agricultural Preserve</p> <ul style="list-style-type: none"> - Mules - Agriculture Display Area - Crops - Mule Rental & Historical Barn - Open Plaza - Courtyard - 26 Parking Spaces | <p>3. Amphitheater</p> <ul style="list-style-type: none"> - Band/Stage Shelter - Sculptural Landform <p>4. Passive Area</p> <ul style="list-style-type: none"> - Pond - Picnic Shelter - 62 Garages - Walking Trails - Restrooms - 62 Parking Spaces | <p>5. Historical Train Depot</p> <ul style="list-style-type: none"> - Bicycle Trail Head - Sculptural Landform - Restrooms - 40 Parking Spaces - Antique Car Show - Fences - Historic Signs |
|--|--|---|

Legend

- Deciduous Tree
- Evergreen Tree
- Ornamental Tree

Date: Jan. 16, 2004

Riggs Heritage Park Conceptual Site Plan

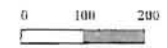
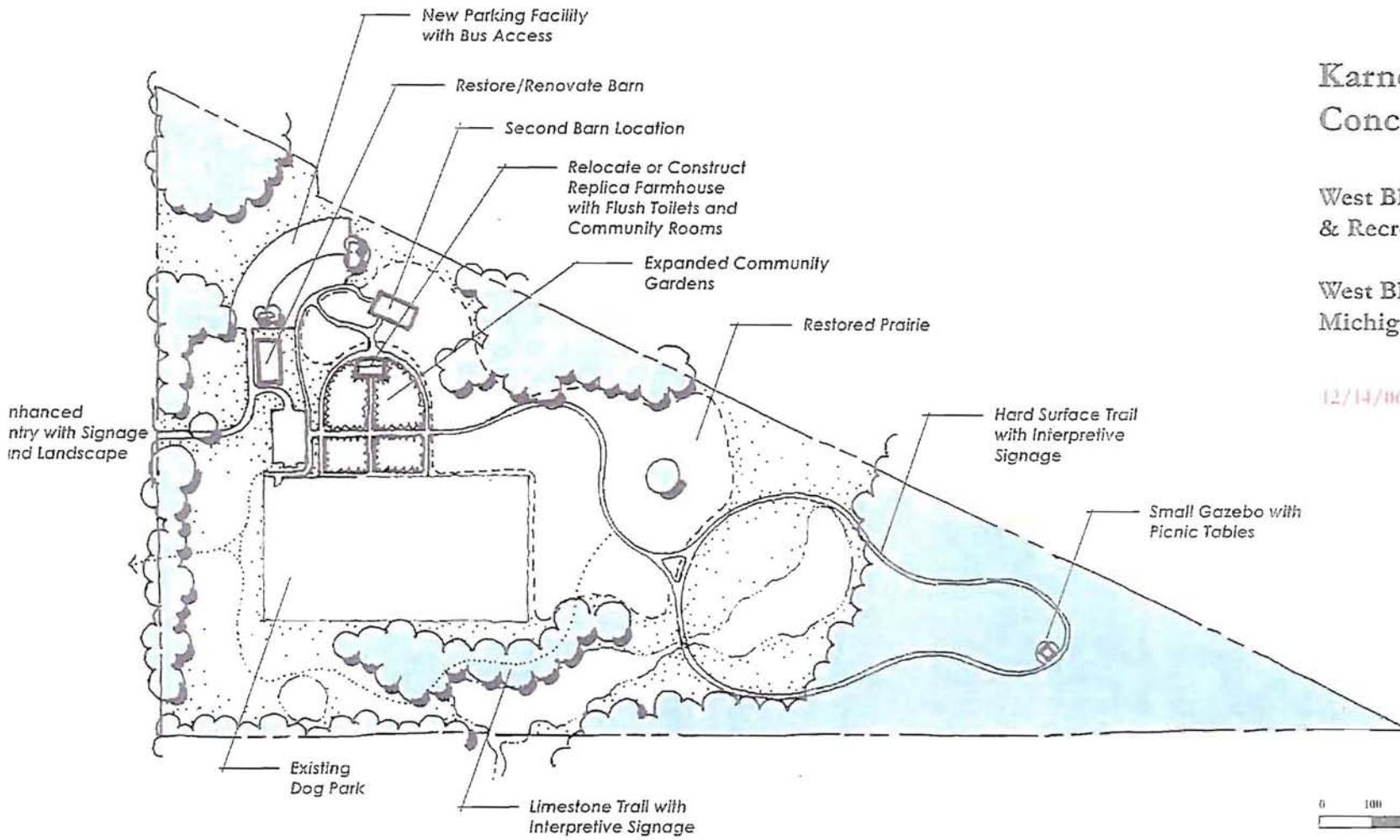
Van Buren Township, Wayne County, Michigan

Karner Farm Concept Plan

West Bloomfield Parks
& Recreation Commission

West Bloomfield Township,
Michigan

12/14/06



Source: West Bloomfield GIS data

Mckenna





A HIDDEN

Jewel

Flat Rock Community Center

By Wendi Sawchuk, Associate Editor • Photography by John Pegouske of Wilkie & Zanley Architects

The City of Flat Rock is a bustling downriver community with a growing population of about 10,000. It is directly accessible via main thoroughfares such as Telegraph Road and I-75. While Flat Rock continues to develop residentially and commercially, its location along the Huron River allows the natural environment to be the main attraction. There are several parks and recreational open areas that give visitors

and residents the opportunity to enjoy the beauty of the outdoors. Although Flat Rock is still a smaller community in terms of population, the equal balance of nature and development makes it a "hidden jewel" within the Southeastern Michigan region.

One of the most recent developments for the city is the new Flat Rock Community Center. The 52,000-square-foot, two-story facility opened its doors in

January 2005. "My original projection was to reach at least 1,200 members," said Richard Jones, mayor, City of Flat Rock. "We passed that at about the six-week mark. We are currently up to approximately 4,000 individual card holding members."

IMPROVING THE QUALITY OF LIFE

When Mayor Jones took office about 20 years ago, community recreation did not

exist in Flat Rock. Over the years, his administration has made progressive strides to provide facilities and parks for residents and visitors. The Flat Rock Community Center is the result of ten years of intense planning and improvements made to the city by the recreation department. "Ten years ago, we had only had one park by the river," said Jones. "So, we created an overall plan of what we wanted to accomplish for the city back then. It first started with a library located near the park at City Hall. The next step was our baseball complex, as well as an outdoor skating rink that converts to a fountain in the summer. The final step in the long-term program was a new community center."

The goal for the center was two-fold. Not only is the city providing a facility where residents can meet and socialize, but they are also improving the general

quality of life in Flat Rock. Originally, the plan was to just focus on including a gymnasium and pool. However, as the recreation committee visited other similar community centers, they realized the necessity to include other aspects, such as a senior citizen's room, workout room and banquet room. "This center is the culmination of a lot of input from a lot of people," said Jones. "Basically, we wanted our community to become more active and maintain a healthy lifestyle. It also gives kids a place to play and hang out. Now, they can play basketball to occupy their time instead of running the streets."

THE PERFECT SITE

The site for the new center was never a question for Mayor Jones. He chose a 27-acre wooded plot of land directly adjacent to Auto Alliance International, Inc., a large automobile manufacturing facility. Located directly off of the Gibraltar Road exit on

I-75, the site provided the perfect combination of remoteness and easy accessibility that the mayor envisioned. "I picked this piece of land from the begin-

ning for our community center," said Jones. "I did not want to build it on Telegraph Road where there are all kinds of mixed-use developments and everything else. I was looking for a more secluded, natural location." Not only did the site meet all of the mayor's expectations aesthetically, but also financially. The 27-acre lot was owned by the city's TIFA (Tax Increment Financing Authority). The function of TIFA is to capture city and county taxes, which completely paid for the land. When a city first establishes their TIFA, it captures the taxes on the increase from whatever the assessment was that day until whatever it is on the day the captured amount is needed. "Our TIFA was formed in 1984 when Auto Alliance built their facilities across the street," said Jones. "So all of the Auto Alliance property, as well as this entire site, was owned

on the trail," said Terry Croad, AICP, ASLA, vice president of design, McKenna Associates, Inc., Northville. "On the other hand, it can also act as a finishing point or resting station. If someone is traveling on the trail, they can stop and use the restroom within the building. It is just an added amenity for trail users. Fortunately, we were able to design and construct our community center project in conjunction with the new trail."

Initial programming for the master site plan began in 2001 with McKenna Associates, Inc. (McKA) at the helm as landscape design consultant. Since McKA is also the planning and development consultant firm for the entire city of Flat Rock, Croad was a part of the committee that toured various community centers around the area. When creating the master plan for this site, the obvious focus was to preserve as much of the natural



Rendering of the Flat Rock Community Center.

by TIFA. As a result, half of the debt payment of the project will be paid for by Wayne County. That is why it was important to build this facility within a TIFA-owned area." The other half of the project was funded by a \$6.1 million agreement made with Auto Alliance in terms of the naming rights of the center. Thus, since the land was essentially free and the actual project costs were paid by TIFA and the Auto Alliance contract, Flat Rock residents were not asked to contribute any funding for the facility. "It was a win-win situation for us," said Jones.

The site location also coincided with an ongoing Greenways Initiative project. A 27-mile non-motorized pathway project is underway, which will connect various parks within Flat Rock, as well as link Flat Rock with several other downriver metropolitan parks. Approximately 5.5 miles of the bike path runs throughout the community. "Since it meanders right through our site, the community center facility can act as a trailhead and starting point to get

environment and woodlands as possible. Along with the architect of record, Wilkie & Zanley Architects, Wyandotte, the team utilized a design tool called Plan Unit Development. "It allowed us flexibility from what the standards say in order to take full advantage of the wooded site," said Croad. "It was a tradeoff between what the normal zoning ordinance requires and what we could do to be innovative and save the woodlands and wetlands."

The building is situated to strategically break up the parking spaces. Instead of one large lot that would consume a considerable amount of space, the site plan called for three smaller lots around the facility. In addition, Mayor Jones worked out an agreement with adjacent Manhiem Auto Auction to share a portion of their parking lot to give the community center a fourth available lot. The lot is located across Smith Creek, so visitors who wish to park in the Manhiem Auto Auction lot need only to cross a bridge to enter the facility. "It saved the people of Flat Rock money and it allowed us to construct this building without being short on park-

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The fitness center is located on the second floor overlooking the pool.

ing," said John S. Wilkie, AIA, principal, Wilkie & Zanley Architects. Because the site was an official natural wetland area, they had to accommodate for the flood plain by pushing the facility as far back on the property as feasible. "We literally did not have anywhere else to locate parking spaces on the site. We used every available piece of property we had without sacrificing the natural features." The ultimate goal was to work around the wetlands and trees, rather than cut everything down and replant a few trees after the project.

NATURE DICTATES COMMUNITY CENTER DESIGN

The main driving factor behind the overall design of the Flat Rock Community Center was obviously the natural environment that surrounds it. Once Mayor Jones had selected the location, he immediately knew that he wanted a facility that would also reflect and respect the site. His idea was to provide a full-service community center within a "cabin in the woods" setting. A typical four-sided metal structure would not work logistically nor aesthetically complement the woodlands. The design team wanted to create a warm and inviting environment reminiscent of a lodge in northern Michigan. "When Mayor Jones initially contacted our firm about designing the building, his first instruction was that he wanted to build the best recreation center anywhere," said Wilkie. "He set a pretty high standard for us from the beginning."

In order to accomplish this task, Wilkie, along with his design partner, David Zanley, decided to utilize mostly neutral, earth tone colors and materials. Many of these colors and materials are carried from the exterior to the interior of the facility. One of the most noticeable features of the design, which also gives the buildings its signature look, is the intricate natural stonework throughout. In addition, the interior is very open with high ceilings, as well as strategically placed windows and clerestories that provide an ample amount of natural light and spectacular views. Although the facility is about 52,000 square feet of enclosed space, it also integrates approximately 10,000 square feet of directly accessible outdoor spaces, including patios and sun decks. If simply looking out a window at the beautiful scenery is not enough, guests are able to enjoy the setting outside at several different spots around the building. "We wanted to incorporate a sense of timelessness and tradition," said Croad. "This center looks like it has always been here and always will be here. That style never falls out of favor."

As an accommodation of the site, the layout of the facility stretches lengthwise, rather than outward. The design team strategically decided to include a slight angle at the center of the building to break up the length. "If you look down the main corridor, you will see that it's quite a long building," said Wilkie. "With the slight angle, it does not seem as cavernous as just one long and straight corri-

dor." The actual landscaping around the facility also tones down the elongation of the facility. One of the options for the landscape was to simply lay several feet of grass in the front and back. However, the team felt that it would only accentuate the length. "We made a conscious decision to keep the landscaping naturalistic instead of having 30 feet of manicured lawn space on both sides," said Croad.

Not only does the angle break up the length of the overall facility, but it also provides a subtle separation between the wide-range of simultaneous activity. Since it is a community center, the facility includes amenities for residents of all ages. On one end of the main corridor is the senior area, meeting rooms and banquet center. The opposite end of the facility houses the gymnasium, pool and day-care center, as well as the track and fitness center on the second floor. "Another significant challenge was that we go from a very quiet and sedate amount of activity at one end with the senior area, toward the other end of the building, where there is more active recreation and youth oriented activity (gymnasium and pool),"

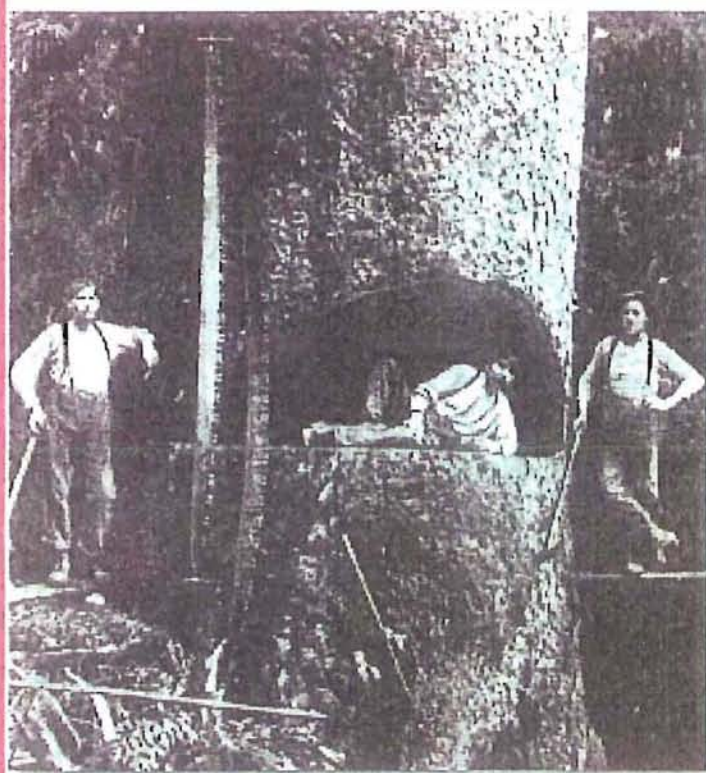


The six-lane pool can be used for leisure or competition swimming.

said Wilkie. "We had to try and incorporate a natural progression of activities so that they did not interfere with each other." The break up of the parking areas around the building also provided some separation. There is a lot located at the senior area entrance, which is obviously used most often by the seniors. The center lot is used primarily by gymnasium and banquet room patrons. Finally, guests using the pool at the far end also have a separate parking lot just outside.

Nature also dictated the design and location of the vehicular access to the facility. Per the request of Mayor Jones and the effort to preserve as much of the woodlands as possible, there is only one vehicular access road to enter and exit the property. Maguire Road, located just off of Gibraltar Road, is a meandering path through a forest of trees. In fact, the actual facility, itself, is not fully visible at the beginning of the road due to the dense woodlands. "Although we did have limitations in terms of vehicular entrance and exit capabilities because of the site, it was somewhat of a design intent to create a sense of anticipation as you travel the winding Maguire Road to the community center," said Croad. "You get glimpses of the facility through the trees, and then as you come around the corner, it opens up." Also, despite the fact that I-75 runs directly adjacent to the facility, the trees shield it from view from the expressway and vice versa. The anticipation factor created by the natural environment makes the Flat Rock Community Center a hidden jewel, even to its members.

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A 10-YEAR-OLD VISION BECOMES REALITY

Construction on the community center commenced in June 2003 with Cunningham-Limp Company, Farmington Hills, at the helm as construction manager. As with every other aspect of the project, the site had a significant impact on the entire construction process. "We fought quite a wet spring and fall that year, as well as it already being such a low site," said Dan Engel, director of pre-construction services, Cunningham-Limp Company. "Due to the wetlands and subsequent wet weather, we had to deal with very muddy conditions. It was a battle throughout the project until we finally got it paved." In fact, as a result of the low site, they had to build the actual floor pad about six feet above ground level.

Once certain trees were cut down to make way for the facility, the construction team began the site work. On most projects, the team is able to perform the site work and erect the structure simultaneously because there is usually more than one way to enter and exit the site. However, on this particular project, the one access road (Maguire Road) prevented a typical construction schedule. "Because of the single access entry, all of our building utilities go back out through that single entry," said Engel. "So, in order to install all of those components, we would have to cut off our only access to the building. We had to complete a significant amount of the site work first so that we maintained access into the site at all times. After the site was essentially complete, we then started to erect the structure."

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The most challenging aspect of the entire construction phase was the masonry used throughout the facility. Masterfully installed by Leidal & Hart Mason Contractor, Livonia, it is an intricate combination of load-bearing and steel-bearing masonry with custom natural stonework integrated on the exterior and interior. All of the natural stones used in the project were actually quarried in Pennsylvania. "There are not many trades people who can do the intricate masonry work performed by Leidal & Hart," said Engel. "It was not an artificial stone or a standard-sized block. If you took the stone out of this project, other than having some unique shape, it would have been a standard building. However, with the dimension of the stone added, it made the entire project unique. A large savings was available to use an artificial stone product instead, but the mayor insisted on the natural stone. An artificial product would not have followed that whole aesthetic of a natural look."

The stonework, which is carried inside, is the feature that blends the building in with the natural environment and gives it the signature "cabin in the woods" appearance. "Really, we did not know what kind of challenge we would have because the stone is something that I've never worked with before," said Mike Harman, president, Leidal & Hart Mason Contractor. "We have worked with a lot of fieldstone, Michigan split stone, river rock, which is smooth rock, and such, but since this stone was a natural product and quarried in Pennsylvania, it was much thicker than normal. We were not readily familiar with the shapes and sizes of the pieces. With other materials, we know exactly what sizes we are dealing with because each piece is specified at a certain size. For this job, we had to go through several truckloads of this stone just to find the right sizes for all of the piers because we handmade and chipped all of our pier corners using a special carbide chisel."

Approximately 16,000 square feet of natural stonework was used on the project. Once the stones were quarried in Pennsylvania, they were brought on site where the masons spread the 16,000 square feet over a large area. They needed such a large area because each piece of stone used on the facility had to be carefully selected for size and shape. It was then custom-cut and chiseled in order to fit perfectly into a specific space. Since each space varied in size, different sizes

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One of the most challenging aspects of construction was the masonry work performed by Leidal & Hart Mason Contractor, Livonia.



of stone was needed, which made the selection even more challenging. "Try to imagine 16,000 square feet of stone laying on the ground and trying to randomly pick a piece," said Harman. "At any given time, two masons would lay out 50 square feet of stone on the ground just to look at it and hand-pick each piece. Our masons were such masters at their craft that they chose each stone by mentally calculating the dimensions that each space would require for a stone. The average size of the stones was about one square foot. After the pieces were exactly customized, we had to lay them a bed of mortar, and then go back to tuck and tool it for a finished look. It was quite a challenge to fit it all in and have an even 3/8" joint in between each piece."

Although every aspect of the stonework was intricate and detailed, the most difficult part of the project was constructing the several piers around the facility. The average size of the piers was approximately 1' x 4' to 2'. Normally, if any other masonry product had been used for piers of that size, it would have taken the masons a few simple days to

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construct each pier. However, the customization of the natural stone required about a week per pier. "Again, the biggest challenge was trying to find the corner pieces and make everything fit," said Harman. "Since we were working with a pier that is only 1' x 4' to 2', we were really limited as to what pieces we could use. Some of the stone was relatively big, which was great for the bigger walls, but for small piers and corner pieces, we obviously could not use a big piece. That is what made the selection of each individual piece an arduous task. When we did form a corner, it had to look like it's been aged in the process. It could not have a fresh cut end. It has to look somewhat natural."

Aside from the piers, the design also called for several roof elevations and rakes (angles) that the stonework had to follow. For example, the front entrance of the facility incorporates two rakes with a precast stone coping on top. The masons had to construct the stone wall, first, and then actually cut the rake into the stone after. Fortunately, the natural stone was soft enough to cut through using a special saw blade. "The city and the mayor were expecting perfection on this job, which I think we gave them," said Harman. "We are very proud of our work and have received a lot of positive feedback from it."

Construction on the Flat Rock Community Center was completed in December 2004. As with any project, the success of the project was the result of detailed-oriented tradespeople and communication among all parties involved. "It looked very simple on the piece of paper to draw two things to come together," said Engel. "But when we had to perform these joints on site where sometimes one side was angled, while the other side was perfectly straight, it presented quite a challenge. The people in the field had to spend a lot of time to figure out how it would all work, along with the architect's representative, George Nixon, who was out here on a daily basis. Everyone worked well together because there was a dimension of detail and difficulty for every step of construction."

A COMMUNITY "CABIN IN THE WOODS"

The entire project team definitely gave Mayor Jones his "cabin in the woods." Upon walking to the entrance of the facility, visitors see three ornate water fountains, which add to the overall natural aesthetic of the center. The main fountain,

located directly in front of the entrance, was also custom built. "It was designed and constructed from scratch," said Croad. "The fountain provides a nice ambient noise as people come in. There is also a small seat wall in front of it, as well." To the right of the main entrance is the senior center (at the far end), full-service kitchen, banquet room, which can hold 300 guests, and meeting rooms.

These areas were designed to be multi-functional where a variety of events and activities can occur. "The meeting rooms all have folding doors, so they can be expanded into different sizes to accommodate various needs," said Wilkie. "The banquet room can be divided in half. It also has a floor material that can be used for events other than banquets. Even the senior room can be situated different

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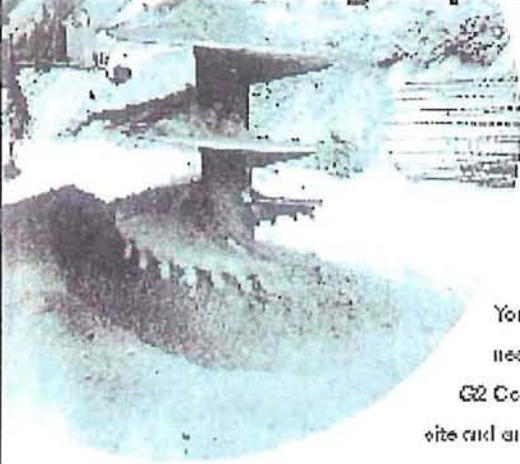
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Leidal & Hart had to perform numerous intricate and difficult cuts into the natural stone product in order to follow all of the edges and corners throughout the building.

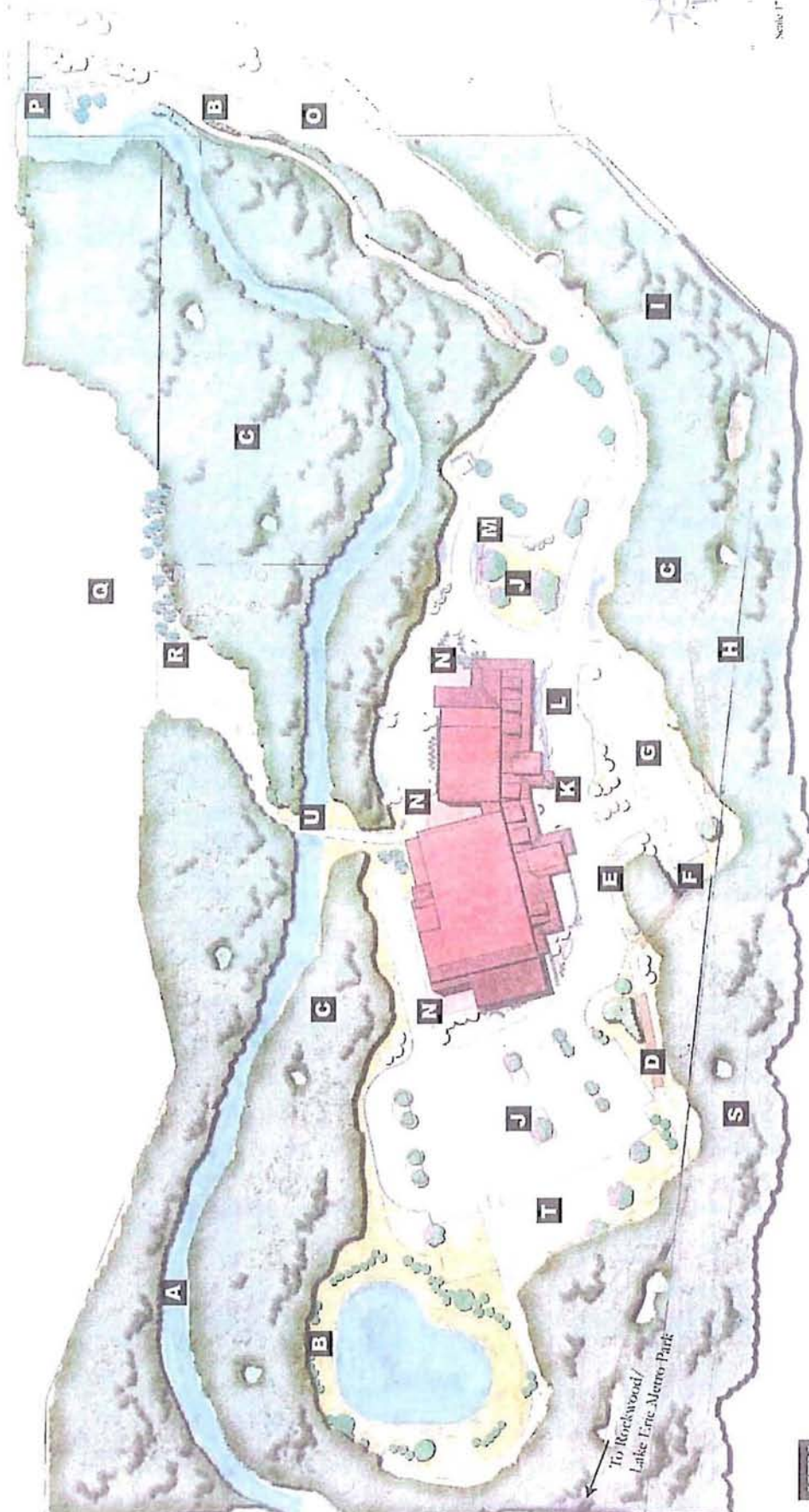
ways depending on the activity."

To the left of the main entrance are the gymnasium, 25-yard, six-lane pool and daycare. The daycare is only available to members using the facility at that time. The spacious locker rooms are centrally located because they are shared by users of the pool, gymnasium and second floor track/fitness center. "We strategically located the lockers rooms so they serve all of the activity on this end of the building," said Wilkie. "It eliminated the need to duplicate facilities."

A HIDDEN JEWEL

Much like the City of Flat Rock itself, the new community center is also a hidden jewel. Although it is not openly visible from the nearby roads, residents of Flat Rock have discovered its services and possibilities. It is not only the activity and fun for all ages that the center provides, but also the natural beauty of the facility and setting that have attracted people to join. "Those who have seen this facility outside of the city of Flat Rock are just amazed," said Wilkie. "Mayor Jones has raised the bar pretty high for other communities to follow suit."





Flat Rock Community Center

Flat Rock, Michigan
January, 2003



KEY

- A. Preserved stream and wetlands
- B. Woodland edge wildflowers
- C. Preserved woodlands
- D. Boardwalks
- E. Climbing rock
- F. Trail head information kiosk and bike rack
- G. Small parking lots set into existing woodland
- H. Wooded wetland
- I. Ten feet (10') wide non-motorized trail (East-west Flat Rock Connector of the Down River Linked Greenway)
- J. Preserved Existing Mature Oak Trees
- K. Entrance courtyard and water feature
- L. Dry stream and fountain
- M. Wetland boardwalk
- N. Observation patios
- O. Entry drive
- P. Entry sign
- Q. Off-site/ overflow parking
- R. Off-site pedestrian access
- S. Existing transmission lines
- T. Future Parking
- U. Pedestrian bridge

To Rockwood/
Lake Erie Metro Park



Scale 1" = 120'

Novi Vernacular

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Community Sports Park Master Plan City of Novi, Michigan

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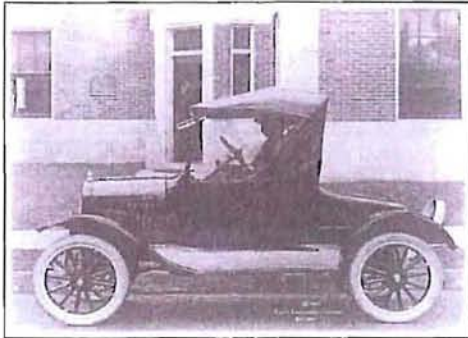




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Flat Rock's Village Industry



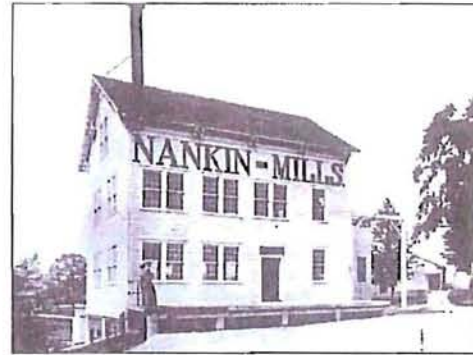
1923 Ford Model T Roadster

In 1920-21, Henry Ford acquired the dam and water rights to the Merler and Dickman mills. Albert Kahn, noted Detroit architect, was commissioned to design the Lamp Plant, Dam, and Water Filtration Plant. Built in 1923, the Lamp Plant made most of the Ford Company's horn buttons, and head, rear, deck, and dome lamps. It had a peak of 1,200 employees in 1929. This plant was the fifth "Village Industry" built by Henry Ford.

In 1949, the plant was moved to a larger facility in Monroe and was sold in 1950 to Flat Rock's Moynahan Bronze Co.

"One foot in the farm and one foot in the factory." - Henry Ford

Henry Ford experimented in uniting agriculture and industry in the development of nineteen "village industries" - small hydro power plants built in Southeastern Michigan. They were part of his goal of balancing industrial technology with agrarian culture and decentralizing the modern urban plants of his time. Many of these plants began to close after 1945, following Henry Ford's retirement and the young Henry Ford II's desire to spin-off his grandfather's money-losing ventures.



Former Grist Mill converted into one of Ford's Village Industries



Albert Kahn's General Motors Building (now called Cadillac Place)

"Architecture is 90% business and 10% art." - Albert Kahn

Albert Kahn, 1869-1942, an architect of German-Jewish origin, is best known for his industrial architecture of the auto manufacturers and the US war effort in World War I and World War II. His "reinforced concrete" design gave his buildings an open, spacious, and efficient interior, which made it possible to adapt a factory's layout to the needs of the workers. Enormous windows occupied almost all of the openings in the concrete frame allowing optimal conditions for lighting and ventilation.



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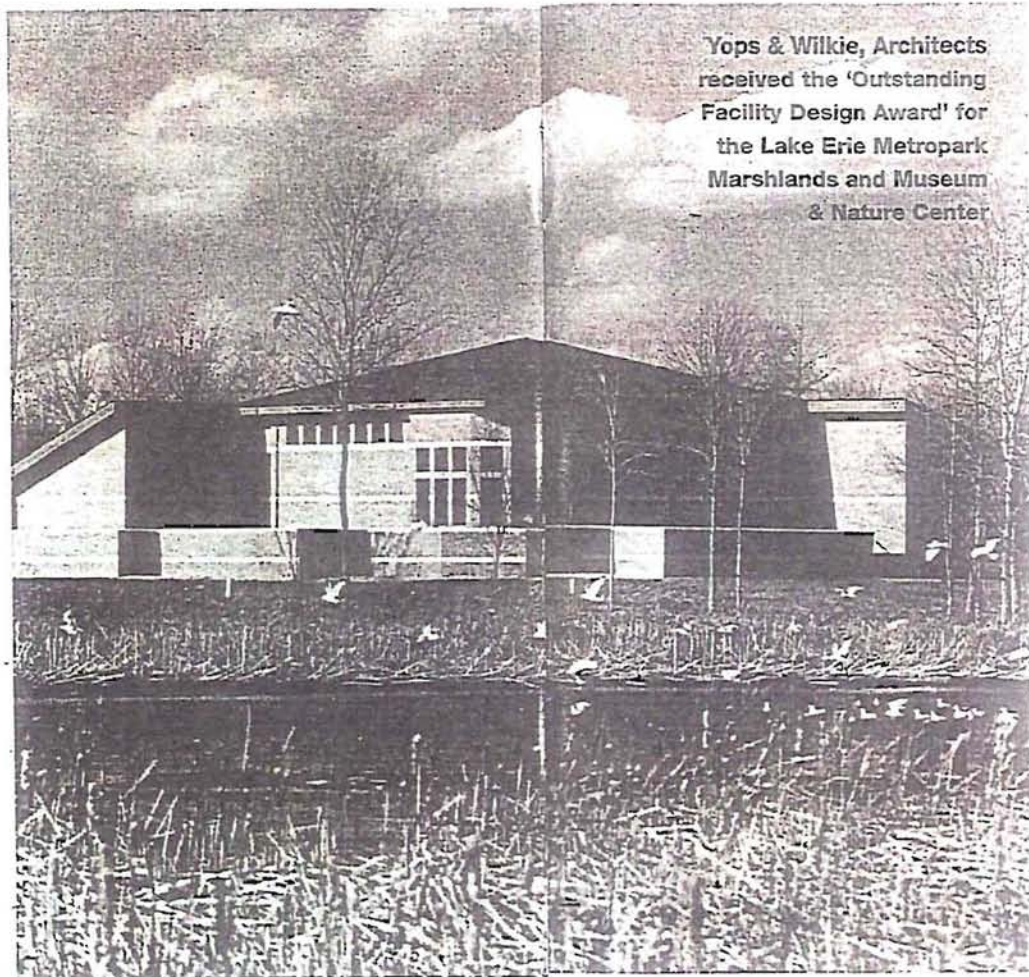
Awards

Yops & Wilkie receive award for 'Outstanding Facility Design'

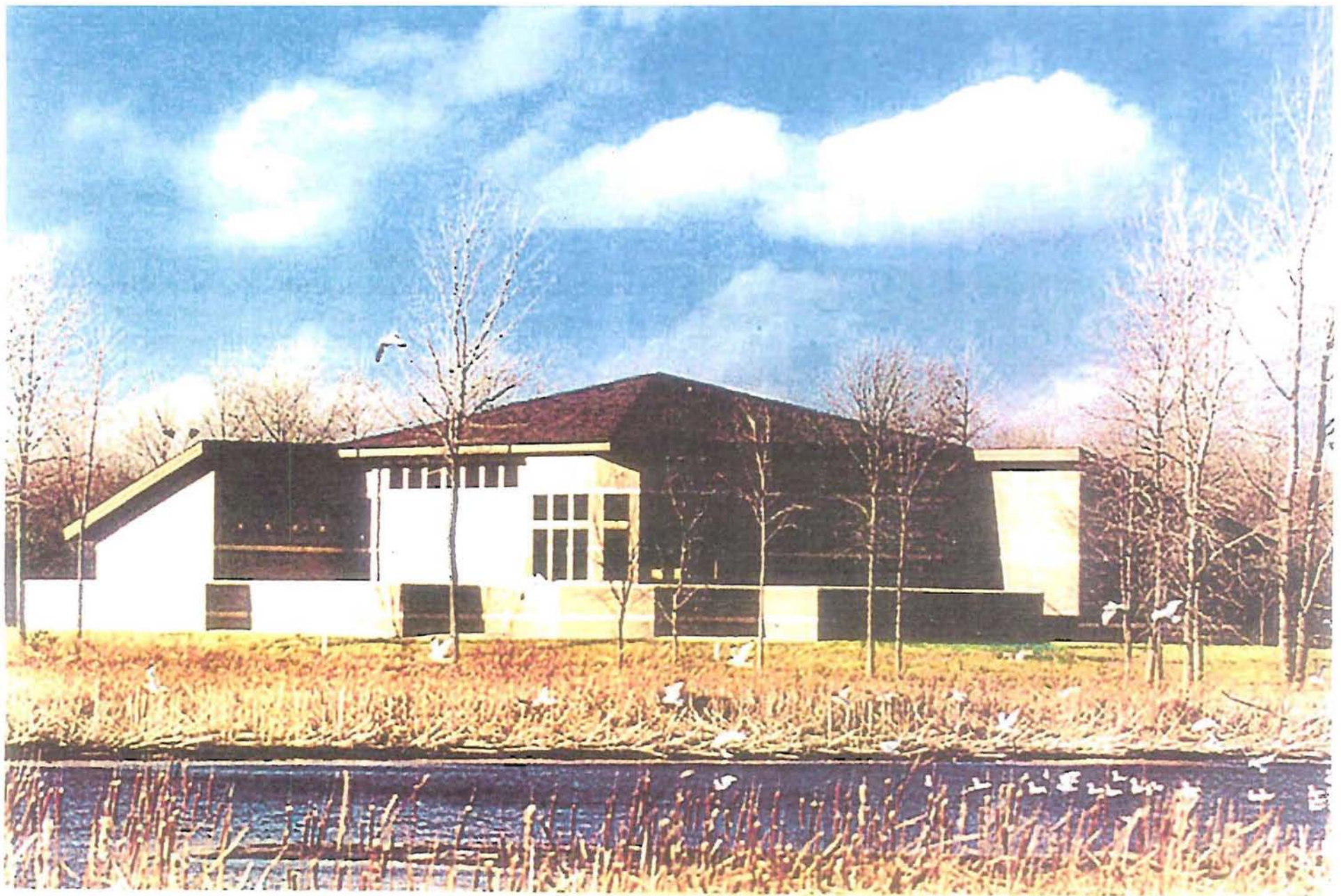
On January 26, 1997, during the Organizational Award Program held by the Michigan Recreation and Park Association in Lansing, Yops & Wilkie, Architects received the "Outstanding Facility Design Award" for the Lake Erie Metropark Marshlands and Museum & Nature Center. The project had previously been selected by the Michigan construction Industry for inclusion in the Design and Construction Showcase "95" as an example of the finest craftsmanship, design and construction project management in the state.

Owned and operated by the Huron-Clinton Metropolitan Authority, the Lake Erie Marshlands Museum and Nature Center is a 7,150 square foot, one-story building that houses museum, nature exhibit and observation areas, a classroom workroom, restrooms and offices. Its purpose is to interpret both the natural and cultural history of the lower Detroit River and western shore of Lake Erie. The building design flows with that two-part concept in mind. The design incorporates handicap, school group and public program needs, as well.

Yops & Wilkie, Architects has designed other Lake Erie Metro Park projects including the Park's Administration Building; the Food Service Building, and the Wave Pool and Bath House. A commitment to innovative design is characteristic of the projects produced by the firm, which has provided the Downriver communities with architectural services for 42 years. ■



Yops & Wilkie, Architects received the 'Outstanding Facility Design Award' for the Lake Erie Metropark Marshlands and Museum & Nature Center



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