From Patch to Preservation
Ritchey Woods Nature Preserve
catherine.anne.reek

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Ritchey Woods Nature Preserve

LA 404 Comprehensive Project
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INTRODUCTION
Rhythms of the Rain

We are children of the desert;
Our lives are governed by the rhythms of the rain.
In the single, sweeping moment
When the rush of rain water first reaches the earth
Our hearts beat in harmony
With coyote and lizard, with re-tailed hawk
With the throbbing of thunder itself.

Desert's children learn
That there is no excuse of excess;
Every drop is needed
Every storm is the precious gift of a single day of rain,
Rain we cannot take for granted.
When it comes, the earth stills
And we stop to watch and wonder, knowing
It will soon pass away.

The children of the desert, together with
The timidly unfurling leaves of the creosote branch
Creep out to feel the lighting pulse in their blood.
We listen to its melody;
Water is the only language
All creatures speak together.
I can hear the rain
And I feel its touch on more than just my skin.

Melissa Lamberton, age 15

Children see their environment in a unique way. Their ideas and understandings of the world are unfiltered and innocent. They can inspire others, of all ages, with their outlook. However, where they lack a long history of filtered knowledge, and a passion for quality design, they can be inspired themselves.

A landscape can reveal creative play spaces, entice environmental education through experience, and offer a natural retreat for students of all ages. This study proposes to create an outdoor learning lab within a nature preserve where environmental education will be more effective as an experiential process.

This multi-purpose living laboratory will promote appreciation, stewardship, and environmental awareness through interactive exhibits and hands on learning experiences. The common language of experience will reach a more diverse range of students, and will influence them in a different way as compared to a traditional classroom.

Abstract
From Ritchey Woods to Ritchey Woods Nature Preserve

Dr. James O. Ritchey set aside a plot of land many years ago that he willed to stay preserved forever. The small plot of tree-covered land has changed hands many times over the years, and has just recently been turned over to the Town of Fishers to develop into a nature preserve.

The main need then became designing an overall master plan in order to being planning for the site. In addition, boundaries needed to be defined, uses determined, trails designed, an architectural character implemented, and site ammenities and features organized.

Once a carrying capacity was determined, a more detailed design development could take place to identify how the overall preserve will be maintained, how it will best serve its users and clients, and how it will be sustained in the future.

The following report explains the steps that were taken in order to achieve Dr. Ritchey's dream. Furthermore, the small area he set aside so many years ago will now be developed and transformed into a preservation district for the citizens of the Town of Fishers for years to come.
RESEARCH

Literature Review
Case Study 1
Case Study 2
Case Study 3
Case Study 4
Design of Children's Play Environments
Senta Mitsura
Outlining many different elements of play, this book defines the role and theory of play, research and design, and equipment and space. The theory is broken down into six different types of spaces as play environments. They area as follows: nature spaces, open spaces, road spaces, adventure spaces, hideouts spaces, and play structure spaces. Four elements of play are divided into enjoyment of dizziness, enjoyment of nature, enjoyment of stories, and enjoyment of discovery. Finally, another section of the book illustrates architecture for children in three categories: earth, theatre, and circular play.

The interesting and unique play environment examples that are detailed in this book will be used to brainstorm ideas for implementing play into the learning interpretation exhibits that will be designed. Although, a traditional playground is not allowed on the property of a Nature Center, the theories will help organize design ideas for outdoor, educational spaces and exhibits. This resource will also be helpful to understand children as a main client for the project.

How to Create and Nurture a Nature Center in your Community
Brent Evans
The author uses his own experience, being asked to build a nature center from scratch for a community in New Orleans, in order to summarize the objectives of how to go about beginning a nature-based educational center. He describes the process: selecting the site, going after, purchasing, and declaring the land and its purpose, and how to use volunteers successfully. He stresses the importance of multi-use spaces.

The author describes a long list of possible pieces that would be included in a nature center or outdoor learning environment. There are items that may be considered upon designing and planning. Programs and programming are discussed as well. These would be helpful for picking a direction to go for interpretive strategies for the center.

Reading the Wilderness
Clair Enlow
Clair Enlow, a journalist and design critic, reviews the Maple Valley Library just outside of Seattle in Maple Valley. The idea, to turn a small community into a mature and livable "edge city", mixes urban development with a healthy, intact forest ecosystem. It was declared, as public development, to have a wilderness feel. The landscape throughout the site is described as "scruffy." It is not necessarily designed, but recomposed.

The concepts of how to deal with the biggest watershed on the site, the roof, were most intriguing. With water collection systems that run off of several watersheds, natural deep rock wells were constructed to recharge water back into the ground. It is a sustainable technique that is not obvious or obtrusive. It just works. The same ideas of this library building built into an older landscape, could be implemented into any site for a nature center or outdoor learning center. The ideas for low impact construction would be the same.
Island Wood on Bainbridge Island
Seattle, Washington
(Environmental Design and Master Plan)

"The center is a magical place where children and visitors can develop greater understanding of the Puget Sound native ecology—and reduce their own ecological footprint."
Landscape Architect, Tom Berger

An outdoor learning center on an eco-friendly campus with a restored natural landscape and living laboratory make up this particular case study. The project was built in order to encourage environmental educational and showcase sustainable design practices. Island Wood has become an environmental asset, a resource for local schools, and a good neighbor.

The ideology and design began in 1997, and it was completed in 2002. The site now serves as a field trip destination, summer camp retreat and a conference center. Some program elements include a laboratory, kitchen, creative studios, sleeping lodges, suspension bridge, forest canopy tower, a floating classroom, greenhouses, tree houses, composting bins, water-harvesting systems, and demonstration areas.

The sustainable practices show cases and top level of environmental design were inspiring in this project. Roofs were designed with the intention of passive-solar gain, a living machine wastewater treatment facility sits in the center of the campus for observation, organic gardens are used for food harvesting, composting beds are used to defer scraps of food and waste, and a garden/nursery is used to propagate native plants in order to re-establish them where invasive species lay. Recycled materials were used elegantly across the campus.

I was not as impressed with the private feeling that the center seemed to put out. The usage of the campus seemed to be by invitation only. This may not be the case, however, it is something to avoid in this comprehensive project. An overall feeling of accessibility to the public should be relayed instead.
Crestview Elementary School
Boulder, Colorado
(Outdoor Education)

"At the Crest View Habitat creative play of the Huck Finn variety seems to reign. A few children play hide-and-seek in tall prairie grasses, while from the boardwalk others work nets filling a container with minnows, crayfish, and tadpoles, and then depositing the contents into a tiny pond. Meadowlarks and red-winged blackbirds—species rarely seen elsewhere in this neighborhood of manicured one-acre lots—sing from cottonwoods."

Author, Michael Leccese

Naturalizing an elementary school campus was the major concept in this case study. A restoration ecologist and landscape architect teamed up to provide an alternative type of outdoor area surrounding this school in Boulder, Colorado. Design Concepts, out of Lafayette, Colorado and The Restoration Group out of Boulder have seen several projects similar to this one. It is part of a new movement to naturalized schoolyards.

By working together with the Boulder Valley School District and Crest View Elementary Parent Teacher Organization they created an outdoor play/learning area that was site specific. Some program elements include an amphitheatre, which is used for theatre and English classes, a boardwalk winding through a wet prairie, which is used for science classes, and large boulder rocks are used for desks in outdoor art classes.

The habitat area, which works as both a playground and a park, was most impressive. The idea of multi-use areas, which function during school ours for students as well as during the weekend and holiday hours for the general public's use, is a key characteristic that should be repeated. Also, the school children raise funds each year to support the cost of their alternative outdoor play space. That interaction connects them to their property, gives them a feeling of ownership, and thus compassion for the area.
C.O.P.E. Environmental Learning Center
Centerville, Indiana
(Sustainable Design Elements)

C.O.P.E. Environmental Learning Center has unique facilities, which portray a solid theme architecturally as well as environmentally. Recycled and reused materials are implemented throughout the site, and it seems to possess similar characteristics.

Overall, the use of materials, the unique and diverse trail system, the architectural character, the commitment to public service through demonstration, and the general objectives declared by the organization make it an excellent model project for the master plan and design of Ritchey Woods Nature Preserve.

A diverse hiking trail system winds up and down some interesting topography as it travels through a large conifer collection, wetlands and ponds, a Native Indiana prairie, and hardwood forests.

The center specializes in sustainability demonstrations, and currently gives programs regarding alternative energy use, composting, organic gardening, environmentally responsible building, and the effectiveness of recycling.
The Lady Bird Johnson Wildflower Center
Austin, Texas
(Ecological Design and Interpretation)

"The Lady Bird Johnson Wildflower Center is one of very few places built in the late twentieth century in which the aesthetic of ecological design permeates and integrates both landscape and architecture."
Author, Deborah W. Dalton, ASLA

Designed and built in 1995 in Southwest Austin, the Lady Bird Johnson Wildflower Center has become a nationally focused organization for the conservation and restoration of native plants. It is now a part of the Green Space Network, and their main goal is to focus on cultural and educational experiences for the visitors. Some featured areas include a vine-draped aqueduct, a water garden—which has become an oasis for birds, butterflies, fish, toads, frogs, turtles, and visitors—an arched stone gateway, courtyards, meditation areas, and a few demonstration gardens.

The specific environmental design comes out in the parking lot, which is arranged around storm water recharge basins planted with wildflowers and prairie grasses and scattered with native limestone. Also, a large cistern made of rusticated, white local limestone, is fed by an overhead gutter bringing harvested rainwater from the roofs of some of the buildings. These elements of architecture which blend into the landscape, and function to solve environmental issues of the site, were most intriguing.

Questions about native plantings and what are designed elements compared to natural elements of the landscape are two big questions asked at this center. Considering various methods to alter confusion might be beneficial to this comprehensive project because it deals with interpretation and re-establishing native landscapes while simultaneously imprinting a new overall design theme and character.
Criteria
A. Should be within driving distance for numerous site visits.
B. Must contain a variety of ecosystems, which are native to Indiana landscapes.
C. Should be enclosed by a highly developed/developing urban context.
D. Must be accessible to a growing population of surrounding school groups.
E. Must be open to the public all year long.
F. Must have an adequate amount of acreage to provide natural animal habitats.

Narrative
Ritchey Woods Nature Preserve is the site which I have chosen to develop. A property, just recently given to the Town of Fishers, was originally a horse pasture, orchard, and agricultural fields owned by Dr. James O. Ritchey. The Children's Museum of Indianapolis used it for several years for their outdoor education programming, and only seven months ago decided to turn it over as a Nature Preserve to Fishers.

The site, which met all of my criteria standards, was particularly intriguing to me because it has such a range of ecosystems within one common area. And, not only such a diverse range of ecosystems, but all nestled within such a rapidly developing residential area right outside of Indianapolis. And, just a jog down Interstate -69 from Muncie, it is within reach for numerous site visits as the design process begins.

Ritchey Woods Nature Preserve is currently in the beginning stages of master planning its long-term usage as a Nature Preserve for the Town of Fishers. Danesa Stolz, the Property Manager and sole Naturalist at the preserve, has helped me to define a purpose for my project, which meets both the wants and needs for designed areas within the property, as well as my own interests for a comprehensive project.

She will use my research, designs ideas, and various conclusions for the Master plan and further detailed development as a reference in the real life planning, which will begin next year. And, I will use Ritchey Woods Nature Preserve as my site for developing a comprehensive project based on the newest natural asset to the Fishers community.
Location
Ritchey Woods Nature Preserve (RWNP)
10410 Hague Road
Hamilton County
Fishers, Indiana
U.S.A.

Size
Total: 127 Acres
Indiana State Nature Preserve: 42 Acres
Under a conservation easement governed by the DNR: 85 Acres

Brief History
The Woodlands were willed by Dr. James O. Ritchey to The Nature Conservancy many years ago. It had been used as a horse pasture, an orchard, and basic agricultural fields up to that point. The Nature Conservancy gave the land to the Children's Museum of Indianapolis, who used the property for various outdoor programs over a few years. They built a few structures, a boardwalk, and defined several trails. Seven months ago, the Children's Museum of Indianapolis decided to give the land to the Town of Fishers to be developed as Ritchey Woods Nature Preserve, and become an asset of preserved land to such a rapidly urbanizing setting in Hamilton County.

Site Contacts
Danesa Stolz
Property Manager and Naturalist, Ritchey Woods Nature Preserve

Center for Earth and Environmental Science
Indiana University-Purdue University, Indianapolis
www.cees.iupui.edu
Hague Road
Hague Road runs along the east border of the preserve. A multi-use path sits between the road and the preserve itself. This road is highly developed with small businesses and commercial buildings, but it does have patches of agricultural fields waiting to bought and built upon, as well. The two lanes are not traffic heavy, but do move at a swift pace between 40-45 mph.

Airport
The Airport sits at the southwest edge of the property, and creates a large open space buffer between the preserve and residential development. Ritchie Woods has tried to purchase the land edging the runways in order to create an even greater separation, however only negotiations about possible plantings were ordered. Deer running over across the runways is a problem every once in a while.

Residential Subdivision
The subdivisions to the north of the site are typical prototypes of the existing development in the town. Two-story, single-family homes on a quarter acre properties line the wide streets of these neighborhoods. The actual houses are not visible from the site.

Agriculture
Agricultural fields border the west edge in a small area. They are privately owned, and well-maintained, although run-off water from these fields has caused an extensive amount of erosion to the preserves lower woodlands and wetland areas. Drain tiles have been utilized, however, they have been unsuccessful thus far.

106th and 116th Streets
116th Street is the main artery of the town of Fishers. The older historic buildings line this street. The site is not directly bordering this corridor, but it is directly adjacent to it. Both 106th and 116th are busy four-lane streets lined with commercial and business developments, which make the natural aspects of the preserve even more appealing, as well as necessary.

Parks
Roy C. Holland Memorial Park
Harrison Thompson Park
Eller Fields
Cumberland Road Park
Heritage Park at White River
Billericay Park
Brooks School Park
Access by Car
Ritchey Woods Nature Preserve is easy to access by car. Located on Hague Road, it is most easily found by exiting at 106th Street off of I-69. Taking the first right, the preserve entrance is about a mile down Hague Road on the left. A gravel parking lot is the terminus to the entrance drive.

Access by Bus
City transportation is not prevalent in Fishers. Bus routes are few, and the sole train line does not feed into typical routes, and is much too expensive to use on a daily basis. A mono-rail is not in existence, but should be in future plans. This residential city has a large amount of commuters who work in Indianapolis, and the major use of transportation is the privately owned automobile.

Access by Trail
A multi-use trail runs along the east edge of the site. This multi-use trail is a common theme in Fishers, and is required by land-owners to complete during construction. A whole trail guide on the following page illustrates how the trail could be used to access the preserve quite conveniently.

City Context
Fishers, Indiana is a growing community with a strong history of family values and successful businesses. Located in Southeastern Hamilton County (see interactive map), just north and east of Indianapolis, major transportation routes, such as I-465 and I-69, make Fishers a very convenient place to live and do business.

The Metropolitan Airport is located in the area and Indianapolis International Airport can be reached in 30 minutes. Cincinnati, Louisville and Chicago are all within 180 miles of Fishers, and are easily accessed by nearby interstate roadways.

Population: 52,390
Median age: 31.0 years
Racial Composition
White (non-Hispanic): 88.5%
Hispanic: 2.6%
Black or African American: 4.6%
American Indian or Alaska Native: 0.1%
Asian: 4.1%
Other: 1.2%
More than one race: 1.4%
This project will reveal a necessary, natural retreat contained by a highly developed urban community. Within it, a progression of nature studies will be strung like beads across the landscape. Each one will include activity, experience, and education for each type of ecosystem—a thick woodland, a wet marsh, an open prairie, a swampy wetland, or a winding creek bed.

Stemming from a single, central structure, these nature studies will create a unique network, which will be designed to host a variety of people. A group or senior citizens might gather for a guided night hike, a large assembly of rambunctious day campers might fill the preserve for two weeks of every summer, twenty-two 8th graders might study stream ecology one fall afternoon, or a family of four might simply picnic and take a few trails on a Saturday morning.

This newly regenerated landscape will provide a get-a-way, a glimpse into the past of what our Indiana landscapes first were, and a great asset to a growing residential community. These spaces within will reach out to minds young and old, to encourage them with possibilities, provide them with alternatives, and open their eyes and ears to the natural sciences with great hopes to inspire.

ACCESSIBLE
Design will provide accessibility to children, adults, handicapped, and the blind.

FLEXIBLE
Design will reveal flexibility for use by a large group, an intimate group, or even an individual.

USEABLE
Design will offer shelter for use in all seasons and weather conditions.

SUSTAINABLE
Design will employ sustainable techniques in use, and maintain a low environmental impact.

EDUCATIONAL
Design will reveal educational opportunities through hands-on activities, exhibits, and interpretation.

PURPOSEFUL
Design will be multi-use by encouraging passive and active recreation beyond planned programming.

INFLUENTIAL
Design will illustrate concepts, which will influence visitors to question their everyday lives at home.

AVAILABLE
Design will be available for public-use through group programs as well as individual use all year long.

VERSATILE
Design will create exhibits which are easy to update and use in a variety of ways by the naturalist.

INCREDIBLE
Design will reveal a character, which visitors will be able to claim as their own, and revisit regularly.
Clients
The main client to be served in this project is the sole naturalist and property manager, Danesa Stolz. She will be the one working there each day, running all the programs, and keeping it maintained. Her ideas and opinions are of most importance.

However, she will report to a board, which will determine what can and cannot be done on the property, so their preset and determined ideas will play a part as well.

There is an obligation to serve the wildlife and plantlife as a client. The unique variety of landscapes that this preserve will have to offer is a valuable asset, and should be taken seriously.

Finally, the visitors are an influential client as well as the users. The preserve is, after all, put aside to be saved for their use, and it is to be designed to suit their needs and wants.

Users
National Visitors
Regional Visitors
State Visitors
The Town of Fishers

Teachers and Students
Naturalists
Boy Scouts and Girl Scouts
Summer Camps

Wildlife
Plantlife
Opportunities
Can build in the 85 other acres surrounding the preserve

Ecological restoration is happening for wetland and prairie

In the process of purchasing buffer easements that will surround the property

Constraints
Extreme erosion problems entering from run-off by adjacent agricultural fields

Built structures prohibited in the 42 acres of the preserve

Trespassing and controlling who enters the property when and where

Erosion problems with gravel drive constantly filling with water

Environmental Issues
Water Run-off problems
Nature Center will create run-off and erosion
Parking Lot drainage problems
Vehicular traffic
Carrying Capacity
Animal movement
Controlling animal populations
Overview
This program will lay out a projection of the intended product for the selected site. A newly determined nature preserve, this 127 acre site in Fishers, Indiana, will be explored for the development of a Nature Center and a supporting network of outdoor classrooms and work spaces connected by an extensive trail system. The intent is to determine a theme or character for the preserve campus, while organizing the new amenities with a strong environmental design in mind.

Context
The Nature Preserve is located in Fishers, Indiana—a rapidly growing residential community just north of Indianapolis, Indiana. The site is surrounded by development. On one side, a division of the Indianapolis Airport, on the other 106th street is lined with offices and commercial businesses, and the adjacent sides are currently small agricultural fields, which may, or may not be developed as well in the future.

Background
This will be the first preserved natural area of its kind in Fishers, and if developed correctly, it will be a huge asset to the community. Fishers increased its population by nearly forty percent in the last five years, and while it is growing at such a rapid rate, this type of unique locked land is difficult to come by. As subdivisions continue to be built one after the other, this land will have unsurpassable value to the community as a cultural, historical, and natural asset.

Participants
The main client to be served in this project is the sole naturalist and property manager, Danesa Stolz. She will be the one working there each day, running all the programs, and keeping it maintained. Her ideas and opinions are of most importance.

However, she will report to a board, which will determine what can and cannot be done on the property, so their preset and determined ideas will play a part as well. Finally, the visitors are an influential client. The preserve is, after all, put a side to be saved for visitor use, and it is to be designed to suit their needs and wants.
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<th>PROPERTY AREA</th>
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On-site Natural (Currently)
Young Woodlands
Wet Prairie
Wetland
Sedge Meadow
Old Orchard Area (One remaining large Apple tree stump)
Cheeney Creek

Off-site Natural
Agricultural fields to the East, South-east, and South edges
Mature Woods to the North-west
In White River watershed

Potential Habitat Restoration Diagram

Habitat Key:
- wet woodland
- wetland
- prairie
- depressional wetland
- mesic forest
- old fields
- fen
- waterways

Natural Inventory
On-site Built
Trails (5 separate trails totaling 2.4 miles)
Bike Rack (for use when entering from the Town’s Multi-Use Trail System’s Hague Road connection)
Parking Area (Gravel)
Shelter (25'x40')
Restroom Facilities (composting system with hand sanitizers)
Boardwalks
Three Sheds
Sunken eroded fire pit

Off-site Built
Kennel at North-west corner
Airport at South-west edge, and corner
Residential Neighborhoods to the North
Town of Fishers Multi-use Path on the North edge
Site Analysis: Land-Use Diagram
Outside Properties
It would be in the best interest of the organization to try to obtain certain properties in order to block views, define edges and boundaries, and stress the importance of multi-use trail for transportation to and from the site in the future.

Views, Edges, and Nodes
The diagram represents the current issues with traffic congestion surrounding the site. Suggestions to improve the Hague Road corridor to the east, and the 106th street to the north are provided. Both will be widened within the next five years.

Site Analysis: Outside Properties, Views, Edges, Nodes, and Circulation
**Concept Key:**
- canopy
- open fields
- parking
- nature center
- other buildings
- large gathering area
- outdoor classroom
- trail bridge
- boardwalk trail
- mulch trail
- beaver pond and creeks
- nature preserve boundary

**Strengths**
- Provides a large Nature Center Building
- Encourages public use and frequent visitation
- Provides extensive trails
- Provides a shelter and amphitheater for 50+
- Encourages and provides for future growth
- Separates service and public entry points
- Allows for groups of 75+ to be hosted

**Weaknesses**
- Ignores the concepts of carrying capacity
- May give a park impression rather than a preserve
- May become overused quickly
- Will provide visual aesthetic pleasing to tax-payers
Concept 2: Bare Bones

Strengths
- Provides for small Outdoor Studios
- Promotes clear understanding of carrying capacity
- Provides Market/Parking space
- Provides privacy by closing off views
- Encourages protection and preservation
- Provides a low-impact, outdoor nature center
- Funnels access to one main point
- Welcomes reservations and encourages minimal visitors

Weaknesses
- Discourages constant use and over-visitiation
- Does not reach out into the community
- Will not provide for large groups
- Requires reservations for groups larger than 10 people
Strengths
Encourages public use and visitation
Provides trail loops with many options
Provides three main outdoor studies
Provides a shelter and amphitheater
Provides privacy and encourages a private character
Separates service and public entry points
Promotes a clear understanding of carrying capacity
Provides parking/market space to involve the community
Welcomes reservations and encourages small groups

Concept Key:
canopy
open fields
parking
nature center
other buildings
large gathering area
outdoor classroom
trail bridge
boardwalk trail
mulch trail
beaver pond and creek:
nature preserve boundary
Master Plan
The master plan concept divides the preserve and surrounding properties into categories all under a character of a preserve district.

The most developed area would be the commercial and business area to the southwest of the site. These buildings would take on the character of historic Indiana architecture. They would be two to three stories, with parking brought to the back, and heavily vegetated to take care of run-off.

The least developed area would then be the preserve itself. Only containing trails, and a few necessary amenities, it will promote the highest degree of protection and preservation.

Across the Hague Road Corridor, the area that has a combination of development and conservation would be the Firefly Farm, which would hold the Environmental Learning Center, parking, and general facilities.

Ritchey Woods Nature Preserve
Prairie Pavilion
Boardwalk Trails
Mulch Trails
Composting Restrooms
Wetland Studio
Access Road
Utility Shed

Landscape Character:
Prairie
Meadow
Wet Prairie

Master Plan: Ritchey Woods Nature Preserve
Master Plan: Ritchey Woods Nature Preserve
<table>
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<tr>
<th>TRAIL NAME</th>
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<td>DIRT PATH</td>
<td>EVERYTHING</td>
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Master Plan: Trail Matrix
Master Plan: Trail Routes

- woodlands mulch trail
- wet woodlands boardwalk trail
- wetlands and prairie raised boardwalk trail
Blow-up Plan
Focusing in on the Firefly Farm area, the necessary facilities have been developed further. A pedestrian bridge connecting the learning farm with the preserve will provide an icon for the area.

The Hague Road Corridor re-development included adding vegetative buffers, creating a boulevard, and introducing a multi-use trail on both sides of the road. Lighting from beneath the road will preserve the night sky, and filtered views will allow drivers and bikers to get glimpses of the prairie grasses blowing in the breeze.

A nature center type structure, parking areas, and a few other amenities were added to the area making it a community center as well as the head-quarters for Ritchey Woods Nature Preserve.

Firefly Farm
Parking Greens
Trailhead
Canopy Bridge
Lily-log Barn
Silo Amphitheater
Water Mill Sculpture

Landscape Character:
Prairie
Meadow
Mesic Forest
Lily-log Barn
Set in a tall-grass prairie, this barn-like structure will serve as an environmental learning center, as well as a community building. Containing a small library, classrooms, and offices for Ritchey Woods Nature Preserve Naturalists and staff, it will provide interpretation space for visitors. A large covered porch will open up to the long axis of nature pools. Vegetative-covered pergolas will stretch from the building and connect to the pond, creating shade.

Nature Pools
This series of small water ponds will provide a designed element for discovery, as well as cooling. Lilypads, grasses, and other plants will fill in the edges, and frogs, fish, and crawdads will inhabit the water. A series of bridges will allow curious children to cross over and around to get a closer look.

Silo Amphitheater
Set away from the main building, this covered amphitheater will imitate a silo structure, and provide a rain-sheltered gathering space for up to 50 children. A naturalist could organize a large school group here, give an interpretive or animal program, or host a small adult night lecture. When not in organized use, the area could be used by individual visitors for contemplation or picnicking.

Water Mill
Concluding the axis of features at the farm, will stand an open space for a community sculpture exhibit to take place. A tall water mill made of recycled and reused materials was one possibility. This could be a changing exhibit in order to obtain community involvement.
Lily-log Barn: Environmental Education Center and Community Building
Structure
The old barn-style roof will have a modern twist, and stand 12' above the surrounding 6-8' grasses. The entire structure will be raised above a round swale, which has multiple purposes.

By taking on the fluctuating run-off water from the new addition of a structure in the prairie, it will create a temporary pond. In addition, it will serve as an open amphitheater space with terraced natural seating and large boulders defining the grade changes.

Materials
Recycled Lumber
Reused Window Frames
Large Boulders (found on site)
Metal Roofing
Caged Rock Downspouts
Reused Crushed Tile Flooring
Large Used Tires (as seating)
Recycled Lumber Picnic Tables

Uses
The Prairie Pavilion will create a gathering area and provide substantial rain cover. Intended for large school groups to use as their initial gathering space to organize, and allow for lectures, the shelter could also be used by a single family picnicking on a Saturday afternoon.
Stacked Lumber Structures
The pyramidal shaped, stacked lumber structures will provide shade and privacy. A larger group of children may be divided into smaller groups for stations of learning in the provided wetland studio. Several smaller areas have been provided.

Tire Ring
The second small area for gathering and discovery is the Tire Ring seating area. Reused tires will be places halfway through the decking providing a climbing challenge as well as a seating circle for a small lecture or demonstration.

Plant Laboratory
Concentric rings make up a backdrop for the Tire Ring seating circle. Each one, rising 6 inches above the next, will contain various small plants. The accessible height will allow small children to touch, smell, and learn about these plants found in the preserve.

Rope Tunnel
The third small area for gathering and discovery is the Rope Tunnel. Wooden horizontal beams will be stretched tight with ropes, and become covered with vines and plant material. Beneath this shaded structure, a small group could gather for study. It also provides an element to hike through in order to get to the overlook at the axis end.

Stepping Stones
The stepping stones provide easy access to the water for dip-netting, as well as allowing for a physical challenge of balance and exploring the waters edge.
Materials
The parking surface itself, will be made of a porous paving material, which will decrease run-off and erosion, and create better drainage. Divided by a running wooden fence and planted heavily with native wildflowers, the access roads connecting each Green will be two lanes and two-track. This surface will encourage slower traffic as well as create a less-developed character for the preserve.

Uses
During the week, all five of the Parking Greens will be used as typical places to store vehicles. However, each weekend, they might become used as community gathering places. During from late Spring to early Fall, these areas could easily transform into a Saturday Farmer’s Market, a trailhead for a Race for the Cure event, or even a Recycling Collection day.

Each Green provides access to the Lily-log Barn by boardwalks made of recycled lumber. The first Green has a more traditional trailhead, which will provide bike parking, composting restroom facilities, water fountains, and seating for the Fishers Community Trail users.
Ideas and Conclusions

The value of Ritchey Woods Nature Preserve could be measured solely by its property value or economic worth. Some may view the land in this way, and put up blinders to the point of view. However, by completing this project, and creating a vision for the property, it is my hope that from now on, the preserve will be viewed by its value to the environment and surrounding community.

Ritchey Woods has a strong importance and worth to the Town of Fishers as a historic landscape preserved within a developing city, as a challenging and exciting place for environmental study containing many diverse habitats on one site, and as an ideal example of observing carrying capacity in order to create and maintain a balance between man and nature, civilization and wilderness.

Habitats

The distinct habitats that will be restored to the assumed original form include: Depressional Wetlands, Riparian Wetlands, Prairie, Wet Prairie, Meadow, Mesic Forest, and Wet Woodland. The combination of these habitats, the flora and fauna that they will produce and sustain, and the centralized location of the preserve will create a prime destination for school groups, field trips, summer camps, and adult outdoor learning programs.

Preserve District and Community Pride

By implementing a green space plan for the entire community of Fishers leading to the White River and beyond, Ritchey Woods Nature Preserve will become a small part of a larger network of preserved wilderness parks within the city. This will encourage animal movement, alternative transportation methods, prevent and decrease erosion, improve natural aesthetics, and increase healthy living opportunities.

These areas of green, previously only simply marked on a map, will now become more than just vacant, open space.Uniting the community, they will connect neighborhoods, create gathering spaces, and encourage a higher understanding of appreciation for the land, of which we as humans are guests to the next generation.

From Patch to Preserve

Overall, the methods of development chosen to accomplish this project have a common goal—to take a small acreage of set-aside land, and turn it into a vision. Ritchey Woods Nature Preserve will now be considered an outdoor education facility, a community hub, and a strong example of preservation.
Thank you
Special thanks to the following people:

Malcolm Cairns
Department Chair

Anne Hoover
Professor of Landscape Architecture

Danessa Stolz
Naturalist of Ritchey Woods

Dr. Amy Sheaffer
Professor of Natural Resources

Center for Earth and Environmental Studies
IUPUI Research Professors and Students