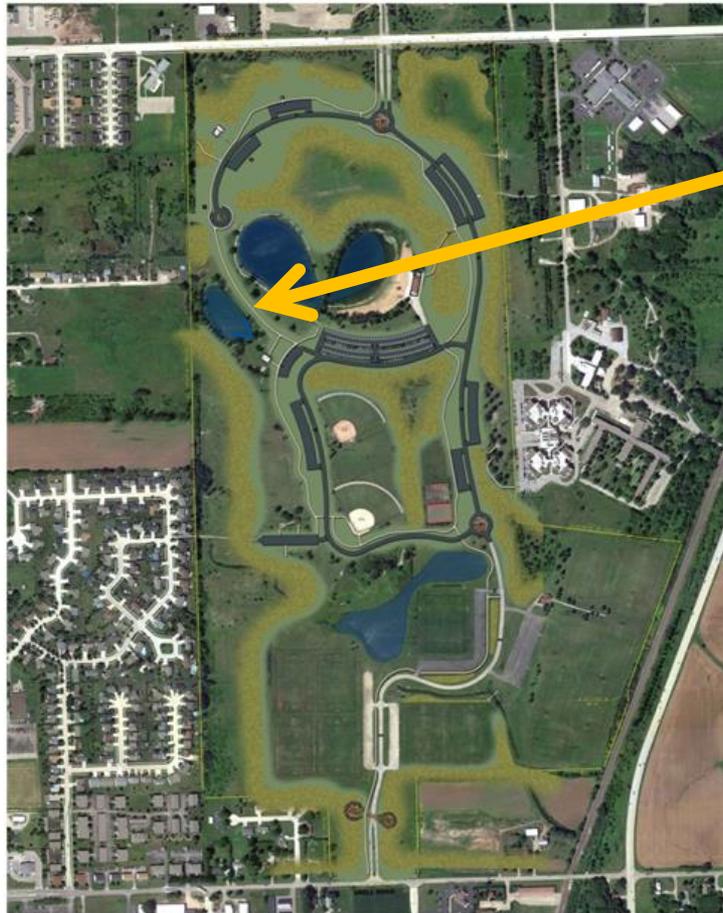




Located within Winnebago County Community Park  
501 E. Cty. Rd. Y, Oshkosh WI 54901

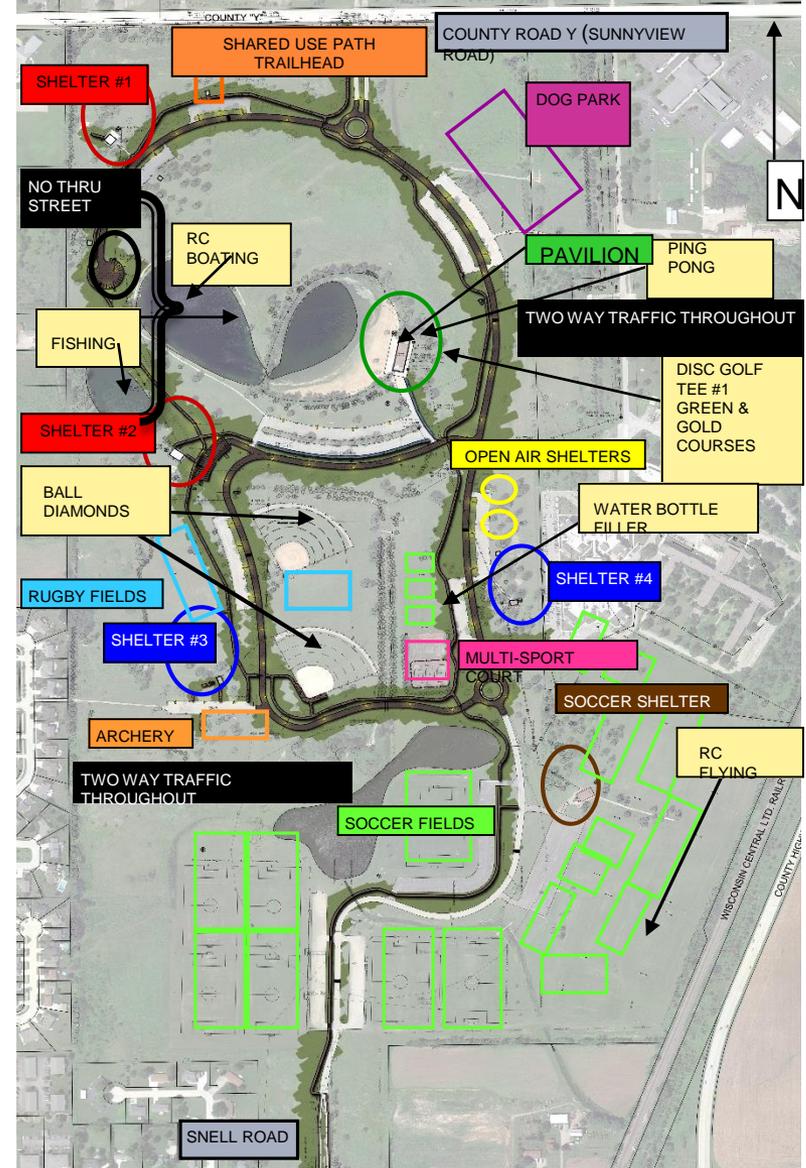
# Centrally located for ease of access.



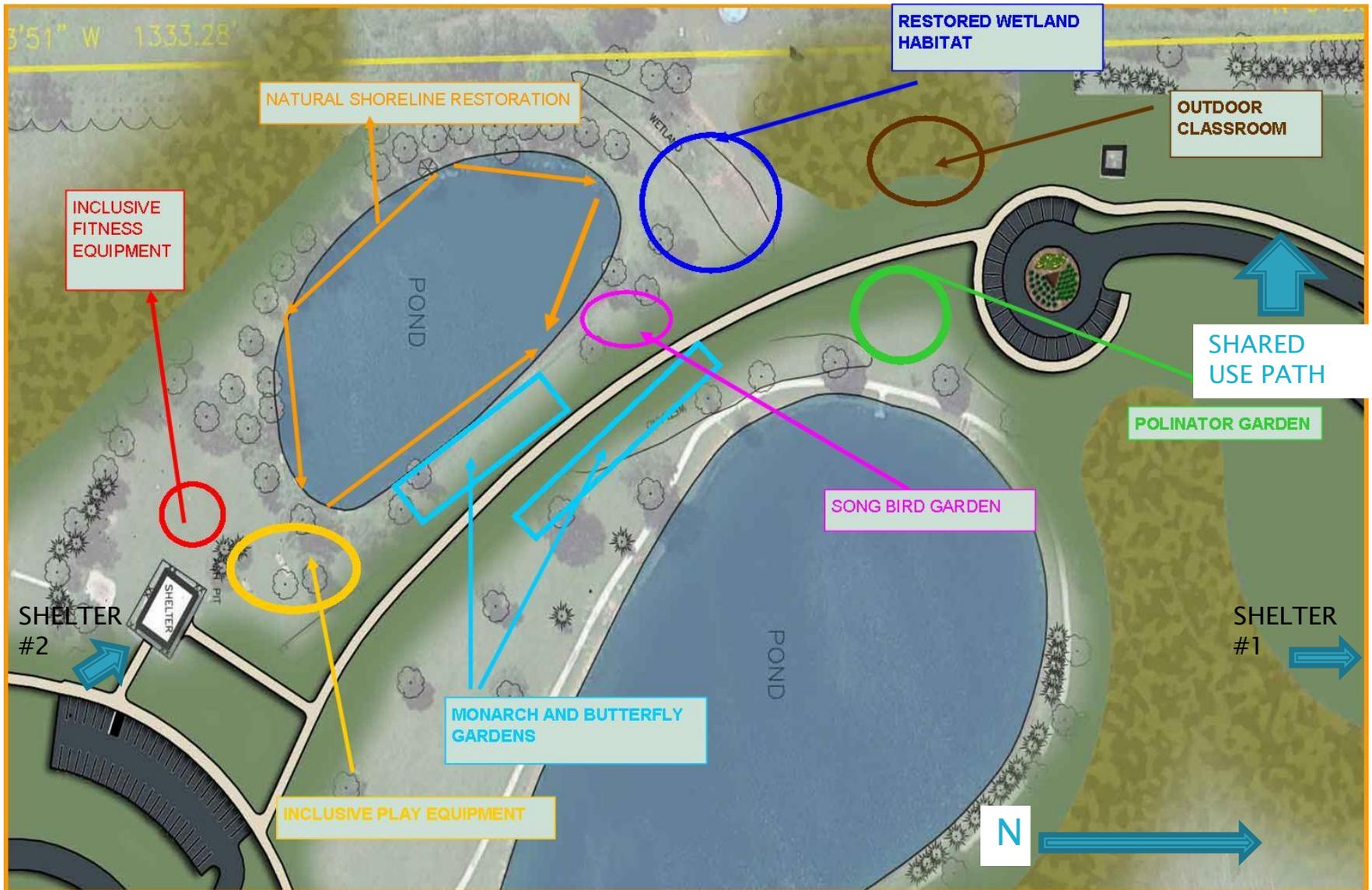


The Natural Way to Live, Learn & Play will be a great complement to the many other elements within the Community Park. This project will be the only known inclusive area of this type within a public park throughout the Midwest.

The park is located in the middle of the Fox Valley, north of Oshkosh and south of Neenah and Menasha, just ¼ mile off Interstate Hwy. 41 via State Hwy. 76.



**Picture Yourself in Winnebago County Parks!**



# Proposed Concept Layout

# Current design and layout in progress via contractor, AYRES Associates.



DESIGNED BY	TR	PROJECT NO.							
DRAWN BY	TR	DATE	04 24 2017	NO.		DATE		REVISION	
CHECKED BY	PJ	DATE		NO.		DATE		REVISION	

NATURAL WAY  
WINNEBAGO COMMUNITY PARK



NATURAL WAY PLAYGROUND

SHEET NO.  
1

## What is Inclusivity and Why right now?

### Inclusivity

Inclusive access is one of the most important aspects to inclusive spaces and allows those with physical limitations to access the space and experience the social, physical and developmental benefits of exercise and play. This includes everything from entry to the designated area and safety surfacing to ramps and transfer stations. Such boundaries exist in fitness facilities as well as playgrounds where active older adults and those adults with cognitive disabilities may wish to remain active.



**Why now?** The Federal government has updated standards for the Americans with Disabilities Act retroactive to September 2010. All recreational facilities for which a standard has been recognized must be in compliance by March 2015.

With the completion of a shared use path in 2014, linking all of the primary function areas within the Winnebago County Community Park and the abandonment of a portion of roadway in favor of a stand alone shared use path, the timing is right to install new equipment to take the place of outdated non-compliant equipment and add more amenities for all ages and abilities.

The design we are pursuing is adaptable and includes children, the cognitively disabled, seniors, those with physical disabilities and all those interested in **Living, Learning and Playing in the Natural Way.**

# LIVE: FITNESS

We live in a world where attitudes towards exercise continue to cause alarming numbers of young adults through senior citizens to lose critical battles with weight control, range of motion, and muscle atrophy. Outdoor inclusive fitness equipment is a fresh-air alternative that could help to reverse this trend, designed to promote fun and social interaction.

According to the UCLA Recreation website, adaptive recreation enhances health and wellness, self-esteem and autonomy for individuals with cognitive and physical challenges. With the help of assistive devices, individuals with specific hardships may enjoy recreational activities alongside able-bodied individuals.



The USARC knows that, after learning new skills and redefining their abilities, participants are able to feel the freedom of recreating with their families and friends. These experiences often result in increased self-confidence and greater success in academic, professional and personal life challenges.



# Exercise benefits for those with cognitive disabilities.

## **Several studies show:**

- People with cognitive disabilities can have a combination of health problems, which are often tied to physical inactivity. Recent studies have looked at the heart and lung function of people with a cognitive disability. When they are in their 20s, they often have the heart and lung function of people 20 to 30 years older. Inactivity can make a person more likely to develop problems with the heart and blood vessels. Inactivity can also decrease a person's ability to take care of himself or herself.
- There are many benefits to physical activity. A person who is active feels better about himself or herself. Physical activity in people with cognitive disabilities can help improve their health, physical function, self-esteem, and behavior. It can provide an enjoyable social outlet and it can help support families and caregivers.
- U.S. children with disabilities are guaranteed the right to appropriate physical education services by the Education for All Handicapped Children Act and the Individuals with Disabilities Education Act. Once they reach age 21, however, many disabled people are on their own when it comes to remaining physically active. Some organizations provide a structured environment for exercise that accommodates people of all physical and mental abilities and skill levels though there is no free, outdoor facility open to the general population, within Winnebago County.
- People with physical or mental disabilities often have several barriers to overcome before beginning a fitness program, including increased fatigue, weight and other health problems due to sedentary lifestyles, abnormal reflexes and depression. However, participating in physical activities can increase self-esteem, stamina, balance and coordination; exercise will not "use up" the energy required for daily activities, but will increase it over time. This is especially important for people with developmental disabilities, who tend to find work in industries requiring a lot of physical labor.

# Exercise for all ages...

# ... and abilities!

Excerpt: "There is now strong evidence that links regular physical activity or exercise to higher cognitive function, decreased cognitive decline and reduced risk of AD or dementia."

Brown, B. M., et al. (2013) "Multiple effects of physical activity on molecular and cognitive signs of brain aging: Can exercise slow neurodegeneration and delay Alzheimer's disease?" *Molecular Psychiatry* 18(8): 864-874. .



The outdoor workout is designed to make it easier for users to perform daily tasks and enjoy a better quality of life.

The result: Adults are stronger and have more energy to complete the real-life activities that matter most.



Lee Recreation

# These types of fitness equipment are adaptable to all abilities.

We have received a grant from Greenfields Outdoor Fitness for 7 accessible pieces to install in 2017. Including...



# 13 Mental Health Benefits of Exercise Everyone Can Enjoy.

- 1. Reduce stress
- 2. Boost happy chemicals
- 3. Improve self-confidence
- 4. Enjoy the great outdoors
- 5. Prevent cognitive decline
- 6. Alleviate anxiety
- 7. Boost brainpower
- 8. Sharpen memory
- 9. Help control addiction
- 10. Increase relaxation
- 11. Get more done
- 12. Tap into creativity
- 13. Inspire others

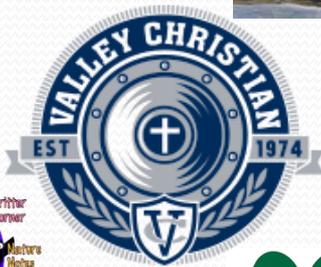


# LEARN: EDUCATION

## POTENTIAL PARTNERS IN EDUCATIONAL PROGRAMS



**Project WET** stands for Water Education for Teachers. Wisconsin values its water resources! With almost 15,000 lakes, 33,000 miles of rivers and streams and 5.3 million acres of wetlands within its borders, Wisconsin needs to protect these waterways. Project WET is a nonprofit water education program and publisher for educators and young people ages 5-18. The program is organized nationally, but delivered on a statewide basis. It is designed to facilitate and promote awareness, appreciation, knowledge and stewardship of water resources through the dissemination of classroom-ready teaching aids.



**Project WILD** is a nationwide program that assists PreK-12 educators in teaching about wildlife and their habitat. The materials are available through Project WILD workshops lead by certified instructors. More than 165 hands-on activities provide interactive learning for youth groups, home schools, camps and nature centers. *Project WILD Activity Guide* focuses on terrestrial wildlife, habitat and responsible human actions. Multidisciplinary activities focus around major themes, including ecosystems and niches, interdependence, changes and adaptations, biodiversity, wildlife issues and trends and wildlife conservation. *Aquatic Project WILD K-12 Activity Guide* explores the wonderful world of water and the aquatic habitats it supports. Students learn about specially adapted wildlife that call our ponds, streams, wetlands, lakes, rivers and oceans home.

*Science and Civics: Sustaining Wildlife* serves as a guide for involving students in environmental action projects. Students focus on benefitting the local wildlife found in and around their community. Young people are involved in decisions affecting people, wildlife and their shared habitat.



# LEARN SUSTAINABILITY



- **Monarch Habitat and Butterfly Gardens**

Are specifically designed to provide milkweed as host plants for Monarch caterpillars, along with their preferred nectar-producing flowers that bloom throughout the growing season. Late season flowers that serve as a critical food source for migrating adults as they prepare for their long journey to Mexico in the fall. This garden will support the survival of this unique creature with a Monarch habitat. Butterfly gardens also contain plants that attract other butterflies and moths, some of which are also endangered.



- **Pollinator Garden**

Creates a haven for our threatened native pollinators and attract butterflies as well! Including the recently listed Rusty Patch Bee.

## **Songbird Garden**

A haven to supply food and shelter throughout the year. Provides both insects in summer and seeds in fall for avian visitors, including bats too.



Each fall, hundreds of millions of monarch butterflies migrate from the United States and Canada to overwintering areas in Mexico and California where they wait out the winter until conditions favor a return flight in the spring. The monarch migration is truly one of the world's greatest natural wonders, yet it is threatened by habitat loss in North America - at the overwintering sites and throughout the spring and summer breeding range as well.

## Why We Are Concerned

Milkweeds and nectar sources are declining due to development and the widespread use of herbicides in croplands, pastures and roadsides. Because 90% of all milkweed/monarch habitats occur within the agricultural landscape, farm practices have the potential to strongly influence monarch populations.

**Development.** Development (subdivisions, factories, shopping centers, etc.) in the U.S. is consuming habitats for monarchs and other wildlife at a rate of 6,000 acres per day - that's 2.2 million acres each year, the area of Delaware and Rhode Island combined!

## What You Can Do

To offset the loss of milkweeds and nectar sources we need to create, conserve, and protect milkweed/monarch habitats. We need you to help us and help monarchs by creating "Monarch Waystations" (monarch habitats) in home gardens, at schools, businesses, parks, zoos, nature centers, along roadsides, and on other unused plots of land. Without a major effort to restore milkweeds to as many locations as possible, the monarch population is certain to decline to extremely low levels.

## The Value of Monarch Waystations

By creating and maintaining a Monarch Waystation you are contributing to monarch conservation, an effort that will help assure the preservation of the species and the continuation of the spectacular monarch migration phenomenon.



- **Shoreline Buffer Garden**

The extensive root systems of these native plants embrace the soil and hold it in place. The flowers attract butterflies and hummingbirds.

- **Natural planting areas and wildlife habitats**

Provide opportunities for interaction with the natural world.



- **Fish Stocking and Habitat Restoration**

Restocking of fish in ponds is taking place, for catch and release fishing, with areas set aside as a nesting habitat for ducks and other shorebirds.



*Natural planting areas and wildlife habitats provide opportunities for interaction with the natural world, not usually encountered in an urban or suburban setting adding to sensory stimulation.*



# Why Outdoor Natural Education?

**Kids with autism benefit from outdoor classroom.**

**Teachers say daily time outside is changing the way young students — including those with special needs — learn and behave**

Nature kindergartens and outdoor preschools are popping up in Ontario, British Columbia and other provinces. They're modelled after forest schools thriving in Scandinavia, Germany and the U.K. over the past few decades.

Blaydon demonstrates how that approach can be adapted for city schools, by using "nearby nature" in schoolyards, ravines or parks.

"We don't have a forest, but this is as close as we can get," says Crowther. And it doesn't have to be fancy or expensive, she adds.

The response of the autistic students surpassed the teachers' expectations. There is little research on how nature and outdoor play affects children with the neurodevelopmental disorder. But as more science emerges on the benefits of nature for young bodies and brains, and as autism rates climb, it's starting to get attention from educators, therapists and landscape designers.

Several major studies over the past decade have found exposure to green space can reduce symptoms for children with Attention Deficit Hyperactivity Disorder (ADHD). There is less known about how that exposure affects children with developmental disabilities such as autism, who may have sensory-integration dysfunction that makes them overly sensitive to sounds, touch and activity and who are often unable to speak or communicate.

- [http://www.thestar.com/life/parent/2013/07/05/kids\\_with\\_autism\\_benefit\\_from\\_outdoor\\_classroom.html](http://www.thestar.com/life/parent/2013/07/05/kids_with_autism_benefit_from_outdoor_classroom.html)

***There are so many distractions in today's world that some youth might never see the sun come up except by watching it on television.***

- *National surveys say most children spend very little or no time observing or interacting in their natural environment and surroundings. Youth need assistance to understand the ecology of our natural resources. This understanding is a vital part of environmental education. One way to achieve this is through an outdoor classroom or outdoor learning facility.*
- *An outdoor classroom is an outdoor educational facility that can be developed into a natural study grounds for educators, students and anyone interested in the natural environment. All subjects or curriculum can be presented in an outdoor classroom. Outdoor classrooms also provide alternatives for all to gain a better knowledge of what natural resources are and to understand the interconnectedness of these resources. Opportunities are available in an outdoor classroom to educate youth on the importance of taking care of the environment. An outdoor classroom provides an opportunity to experience natural and human-created characteristics of the environment in a natural setting. It is a tool that allows educators to take a hands-on approach and move their educational curriculum outdoors.*
- *All ages can take advantage of teaching opportunities provided in the great outdoors, and an outdoor classroom can facilitate the learning process. The area selected for an outdoor classroom might be in the geographic center of the county or town, in the school courtyard or near the playgrounds, or in the county or city park. Regardless, the site should be conveniently located with an easy entrance, plenty of parking and a clear exit in a "safe" area.*
- <http://fsc.fernbank.edu/PDF/Outdoor%20Classroom.pdf>

# University of Pennsylvania Study

## **Executive Summary**

- Childhood is a holistic process, different for each individual child. Many children do not learn effectively exclusively within a classroom. They need alternative, hands-on learning environments to match their varied learning styles.
- Test-driven education mandates often do not emphasize children's emotional and social needs and opportunities for creativity. This limits the development of unique talents and the fulfillment of individual lives, and deprives society of practical, problem-solving intelligence.
- City parks, greenways, and naturalized school grounds can be a crucial antidote to these unhealthy trends. They can motivate young people to learn through the natural environment (which includes learning about the natural environment), bringing environmental education into the mainstream of state-mandated instructional programs. The informal learning, non-formal programs, and formal instruction associated with parks can reinforce each other, enhancing academic achievement.
- **Key Point #1**
- Parks offer children the daily benefits of direct experience with nature — the motivation to explore, discover, and learn about their world and to engage in health-promoting, physical activity.
- **Key Point #2**
- Parks offer children a sense of place, self-identity, and belonging as an antidote to social alienation, vandalism, and violence.
- **Key Point #3**
- Parks engage children in informal, experiential learning through play and shared experiences with peers, laying the foundation for effective formal education.
- **Key Point #4**
- Parks provide a valuable resource for closing the educational achievement gap in communities.
- **Key Point #5**
- Parks offer a vehicle for children's participation in community development, citizenship, and democratic processes.
- <https://www.planning.org/cityparks/briefingpapers/helpchildrenlearn.htm>

# Similar Projects

## Stony Brook, MA



In Norfolk, in the Stony Brook Massachusetts Audubon Reservation, there is a short nature trail, named the Sensory Trail, where visitors can walk holding a rope to stations along the way. At each station is a large bead shaped fishing float in the rope where the walker stops and feels a sign. The raised letters or braille let the person know what is at the station, such as "oak tree" and the person feels nearby to touch the object, such as bark or leaves. The end point is a spot on a boardwalk overlooking Kingfisher Pond, where people can listen to the sounds of birds, frogs, even the lilies. At the head of the trail, just behind the nature center, on the back of a kiosk is a map and explanatory sign for "The Sensory Trail for all seasons, all senses, and all people."

The trail was opened in June 2010, with fanfare. It was done in collaboration with a lot of groups. The primary organizations involved are Massachusetts Audubon and Massachusetts Department of Conservation and Recreation, who jointly maintain the property, the Lions Clubs in the area who provided some of the funding, and Boy Scout Troop 61 in Wrentham, who dug over 130 posts for the trail.

In general, the trail is open every day in the daylight

## Wildlands Conservancy, PA

The recently dedicated Wildlands Conservancy Pool Wildlife Sanctuary's new sensory walking trail for the blind and visually impaired offers visitors of all abilities a multidimensional nature experience.

Located in Emmaus, PA, the half-mile-long trail offers a thick rope for visitors to hold as they walk along the path, which is marked by kiosks presenting wildlife information in braille and in large print. Other highlights include, imprints of animal tracks along with accompanying descriptions and a "Seasonal Box" with new items for each of the seasons - pine cones, acorns, a bird's nest, and deer antlers.

In addition to providing a service for those with impaired vision, the trail will also be used as an educational tool for teaching children and adults alike about the power of the senses of sight, smell, touch and sound—as well as the impact of sensory loss, such as vision impairment.

Visitors will learn about the challenges those with vision loss and impairment face. "It's a wake up... If I ever lose my vision, what would it be like?" The Wildlands Conservancy has already hosted groups of children—some wearing vision impairment goggles, others blindfolded—on the trail.

In addition to the Seasonal Box, nature's own changing seasons will impact the sensory trail throughout the year. "We can manipulate the vegetation here to enhance other sensory opportunities," such as quaking aspens, a type of tree, create a rainfall sound when blowing in the wind. "It will be a changing palette for the senses."



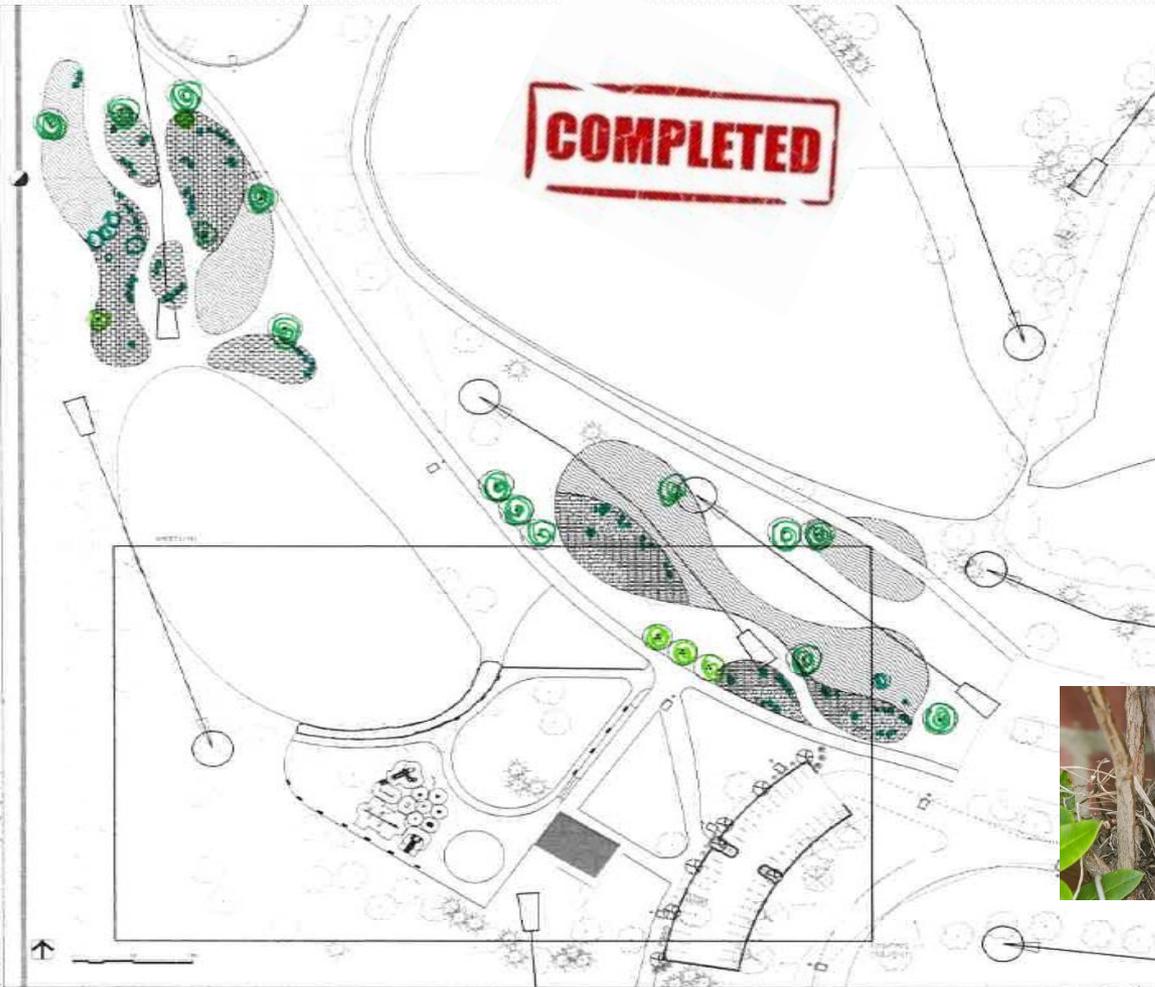
## Pine Barrens, NJ

The Sensory Awareness Trail was developed at the New Jersey Forest Resource Education Center, located in central New Jersey. The original purpose of developing a sensory trail was to provide visitors of varying abilities with access to the diversified ecology of the New Jersey Pine Barrens. Through the Development of interactive, hands-on activities, visitors of all abilities are encouraged to discover, examine, and investigate trees, forests, and the environment.





## Planting Phase 3 – Trees, shrubs & vines for nesting habitat



Area	Code	Plant Name	Quantity
1	101	Eastern Redbud	10
2	102	Black Cherry	10
3	103	Wild Black Cherry	10
4	104	Black Cherry	10
5	105	Black Cherry	10
6	106	Black Cherry	10
7	107	Black Cherry	10
8	108	Black Cherry	10
9	109	Black Cherry	10
10	110	Black Cherry	10
11	111	Black Cherry	10
12	112	Black Cherry	10
13	113	Black Cherry	10
14	114	Black Cherry	10
15	115	Black Cherry	10
16	116	Black Cherry	10
17	117	Black Cherry	10
18	118	Black Cherry	10
19	119	Black Cherry	10
20	120	Black Cherry	10
21	121	Black Cherry	10
22	122	Black Cherry	10
23	123	Black Cherry	10
24	124	Black Cherry	10
25	125	Black Cherry	10
26	126	Black Cherry	10
27	127	Black Cherry	10
28	128	Black Cherry	10
29	129	Black Cherry	10
30	130	Black Cherry	10
31	131	Black Cherry	10
32	132	Black Cherry	10
33	133	Black Cherry	10
34	134	Black Cherry	10
35	135	Black Cherry	10
36	136	Black Cherry	10
37	137	Black Cherry	10
38	138	Black Cherry	10
39	139	Black Cherry	10
40	140	Black Cherry	10
41	141	Black Cherry	10
42	142	Black Cherry	10
43	143	Black Cherry	10
44	144	Black Cherry	10
45	145	Black Cherry	10
46	146	Black Cherry	10
47	147	Black Cherry	10
48	148	Black Cherry	10
49	149	Black Cherry	10
50	150	Black Cherry	10



The last phase of planting is an Oak Savanna which will replicate what was originally here in Winnebago County before settlers arrived from Europe.

# PLAY: FOR ALL ABILITIES

**SEVERAL STUDIES CONCLUDE THAT INCLUSIVE PLAY AREAS SHOULD INCLUDE;**

## **Multiple Play Areas**

Include multiple play areas, some that are more physically active and others that are quieter and more interactive.

## **Variety**

A variety of play events require different challenge levels so children with different skill levels can play together and are set close together to allow kids of all abilities to play side-by-side.

## **Social Play**

Areas where ALL children can gather to socialize, learn and play together, whether it is an area to relax, a cooperative play event or an imaginative play element.

## **Sensory Play**

Play events that encourage sensory involvement to enhance cognitive motor skills, stimulate creative thinking and support tactile and auditory growth. This is also supported by the garden plantings that are being planned.





## **Motion Play**

Play events that sway, swing or spin help kids develop necessary perceptual skills, spacial awareness and sensory integration. They can also help to build strength, balance and coordination.

## **Natural Look & Feel**

Designed to emulate nature with unique design, realistic boulders, and earth-tone color schemes.



Accessibility is not enough. Simply getting a child with limited mobility onto the playground doesn't necessarily enhance their play experience. Nor does it take into consideration children with sensory deficits and other developmental issues.



# Music as Play

- ▶ Music plays an important role in all kid's lives, it's even more profound for people with autism and cognitive issues. Scientists say music stimulates more parts of the brain than any other human function. Music can provide an effective way to stimulate speech development, aid in cognitive and motor development and provide a means to communicate or connect with people, express feelings, tap memories and emotions and connect with others. Outdoor instruments are available in varying sizes, timbres and tones and include chimes, xylophones, bells and various percussion instruments. Anyone can pick out a melody instantly. Pricing ranges from \$1,000 to \$6,000 per instrument with some companies offering packages to suit specific budgets. The Natural Way will offer an area for musical play for all ages, with donations accepted for individual pieces. *The giant chimes will be installed in 2017.*



# The Importance of inclusion



- ▶ Inclusive playgrounds address the needs of all children, including those who have autism, intellectual disabilities, hearing impairments, cerebral palsy, spina bifida and other challenges. An inclusive playground accommodates all and challenges them at their own development level.
- ▶ "A typically developing child who's never seen a child with a disability will just start playing with them because they haven't been told that person is different or weird or strange," a mother said. "They just find another kid on the playground to play with and by doing so they've learned a really important lesson."
- ▶ "It's just the right thing to do," a father said. "They need to be a part of society. There are so many people with challenges out there. You're only one car accident away. Most kids with disabilities have been outside the scope of play," he said. "There was nothing for them to do once they got to the playground. Now, the idea is to design playgrounds that are inclusive not just for mobility impairments but also for cognitive and sensory disabilities."
- ▶ Inclusive play structures incorporate sound, light and sensory panels, and physical activities for children of all levels and abilities. Experts say just the opportunity to be involved in some way is beneficial for children.
- ▶ Accessible swings, spinning toys and sensory equipment for children with autism are effective play equipment for most children that are worth the money.
- ▶ Despite the financial obstacles that may prevent some communities from building these playgrounds, experts agree they are worth every penny.
- ▶ Some parents said. "It's no fun to sit on the sidelines and watch siblings and friends play."
- ▶ Email: [tbetar@desnews.com](mailto:tbetar@desnews.com)

# Why play matters

## 5 Scientific Benefits of Play Are;

- It may look like leisure time, but when children are playing house, fighting imaginary dragons or organizing a game of hopscotch, they're actually developing crucial life skills — and preparing their brains for the challenges of adulthood.
- The bad news, child development experts say, is that free playtime has been shrinking for children over the past three decades.
- Kathleen Lee states in the May 13, 2014 *Science World Report*, "...statistics show that childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years... Findings showed that children who spent more time involved in exercise outdoors decreased their risk for obesity and other weight-related health issues.... Children who spent more time outdoors were more likely to be physically active when compared to those who spent more time indoors. In fact, researchers calculated that for every hour spent outside playing with friends, the children ended up performing an additional 17 minutes of physical activity. Yet for every hour children spent playing indoors with friends, their physical activity levels only increased by an extra six minutes."
- Better behavior
- Playing for the team. Playing also teaches kids to regulate their own emotions, a skill that serves them well as they move through life
- There's evidence that active children grow into active adults, thus decreasing their risk of heart disease and other scourges of a sedentary lifestyle.
- Learning boost. A 2009 study in the *Journal of School Health* found that the more physical activity tests children can pass, the more likely they are to do well on academic tests.
- **It's fun** Play is a natural state of childhood, even non-mammals do it. University of Tennessee biopsychologist Gordon Burghardt told *The Scientist* magazine in 2010 that he's even observed turtles playing.



# Universal Design is here to stay.

## More involved than Inclusive Design

- **Universal Design** is a framework for the design of environments, products, buildings, ideas and more with the express goal that they be usable by the widest range of people with the widest range of abilities. This framework influences Inclusive Play Design ultimately increasing usability, safety, health and social participation within the play environment. This is the upcoming designation that will soon be required of all public facilities. Universal Design does not differentiate between those with physical and mental disabilities. This type of design, already prevalent globally, will be the standard for many decades to come. Therefore the Natural Way is compliant with the concepts of universal design.

## Essential Elements of a Universal Design Environment

- A welcoming, safe and accessible environment is just as important as the equipment you put in it. A well-designed environment makes the space more comfortable and user friendly for children and families of all ages and abilities.
- Variability meets ability with developmentally appropriate challenges, building comfortably on skills already possessed to help gain new skills.
- Such environments can offer many opportunities to further develop physical, cognitive, sensory and social skills. An universal design includes a balance of experiences to build all these skills.
- The result is developmentally appropriate environments accessible to all.



***•All people regardless of ability or age may utilize this facility for learning, staying fit and playing.***

***•Outdoor play has been proven to help reduce childhood obesity.***

***•Outdoor recreation areas in public parks provide opportunities for all economic backgrounds helping to create health equity within the community in a safe environment.***





# THE NATURAL WAY

To Live, Learn & Play



A Universally Accessible Outdoor Recreation & Education Facility

