

Ludington State Park improves its infrastructure

Campgrounds get electrical, water, and wastewater upgrades and replacements



As one of Michigan's most popular destinations, Ludington State Park showcases five miles of Lake Michigan shoreline and many attractions. Yearly, 850,000 visitors and 200,000 campers come for the trails, scenery, lighthouse, and historic beach house. Ludington State Park was one of the first state parks established in Michigan, and some of its infrastructure was almost 50 years old. Prein&Newhof designed new electrical hookups to handle modern camping equipment, a better water supply, improvements to its sanitary dump stations, and made sure this work was done in a way that preserved the environment and did not inconvenience campers.

Long-term, Sustainable Solutions

The State Park improved its water supply with over three miles of water main, directionally drilled through wooded sand dunes between the three campground areas and within each campground loop; replacing one and improving two supply wells for each of the three campgrounds; and interconnecting these separate well systems for better reliability. The existing piping system was experiencing frequent breaks that were difficult to find due to the sandy soils in the area absorbing the water. P&N Project Manager Barbara Marczak, P.E., noted that replacing well pumps with energy-efficient, variable speed pumps reduced electrical costs associated with pumping water from the wells.



The historic beach house, built in 1935, was restored to its original state this year and also required some infrastructure work: new water and sewer lines connecting the house to the Pines Campground's water supply.

The electrical system in the Pines Campground had become unreliable and did not supply the type of electrical needs currently in demand with today's camping style. Improvements included replacing buried aluminum conductors and

adding access points to the lines for repairs, new power pedestals, new power feeds to the bath houses, and a re-feed to the park's warming facility, fish cleaning station and sanitary dump station.

Most campgrounds have dump stations where campers can safely dispose of wastewater from their RV's holding tank. Ludington State Park initially had the capacity to serve two campers at a time, or 10 campers per hour, at its main dump station. The MDNR proposed that each campground have its own walk-up dump station to take the pressure off the main dump station—an innovation that Ludington State Park Manager Jim Gallie thinks due to its popularity may become the norm for campgrounds in the future. P&N also replaced the main dump station with one with a new septic pump and drainfield and can serve 40 campers per hour. P&N worked with the MDEQ to get proper permitting for these improvements, which are in a critical dune area.

Timing is everything. Preliminary analysis of the park's water system and operation proved invaluable during the Labor Day weekend when its aging well system went down. Staff was able to use the information gained to maintain their water system during one of their busiest periods. The following Memorial Day was better, too, since the dump station was improved in time to serve many campers with little wait time. The construction schedule avoided work during peak season from mid-May through Labor Day.

Prein&Newhof worked closely with park staff to ensure that these improvements provide this state treasure with the essential services it needs for years to come.



"The four lane dump station worked better yesterday [Memorial Day] than we could have imagined! We had 300 campers leave the park, and at no point did we have more than three vehicles in a lane. Our staff and campers were very happy how quickly everyone was able to move through. I can't imagine a scenario when we'd have more campers leaving at one time, so I'd say this is a success. Thanks for all of your input on this design!"

Jim Gallie, Ludington State Park Manager

P&N welcomes three new employees to airport team



Jim Koslosky, A.A.E.



Bob Nelesen, P.E.



Jon Van Duinen, P.E.

Jim Koslosky, A.A.E. joined Prein&Newhof in early 2013 as an airport consultant after serving as the Gerald R. Ford International Airport Executive Director for 21 years. He has more than 45 years of airport operations and administrative experience. Jim holds a Bachelor of Science in Business and Public Administration and Airport Administration from the University of North Dakota. He did his post-graduate Studies in Transportation Policy at the University of Wisconsin-Madison.

Bob Nelesen, P.E. joined P&N in late 2012 and has over 11 years of experience in the management and design of airfield engineering projects including: airfield layout, cost estimating, planning, construction safety/security issues, construction inspection, and construction management for aviation facilities. Bob earned his Bachelor of Science in Engineering from Calvin College and his MBA from Texas State University.

Jon Van Duinen, P.E. joined P&N in early 2013 and has 15 years of airport consulting experience in Michigan. He is an accomplished designer, planner, and project manager. Jon holds a Bachelor of Science in Engineering from Calvin College.

Texas Township trail connects community with farmer's market and park

Texas Township is one of the fastest-growing communities in the greater Kalamazoo region. Yet, with only one park, Texas Township offered fewer recreational opportunities than its neighbors.

Township officials wanted to change that. The solution? A non-motorized trail connecting the farmers market to Texas Drive Park and beyond. The idea grew from the Township's Recreation Master Plan in an effort to address local recreational, public gathering, and other needs.

The resulting project accomplished Texas Township's goal and was honored by the American Society of Civil Engineers,



Texas Township's non-motorized trail

Michigan Section with second place in its 2013 Quality of Life Award competition.

Building Community

Texas Township's Farmers Market is near the intersection of 8th Street and Q Avenue, commonly known as "Texas Corners," the social, commercial, and physical center of Texas Township. The farmer's market, pavilion, a restroom, and a new playground are all adjacent to Township Hall, where the new, universally accessible non-motorized trail starts. It connects to Texas Drive Park, residential areas, and the Al Sabo Preserve.

Eventually, the trail will connect these users with 12th Street Elementary School, the Kal-Haven State Park Trail, and the Kalamazoo River Valley Trailway.

Sustaining the Environment

The project features a cellular soil confinement system to reinforce the farmers' truck-parking area. The soil in the cells allows grass to grow over it, and rainwater to infiltrate through it. The parking area is lit after dark using timed, energy-efficient lighting fixtures.

Much of the trail uses the outer edges of Kalamazoo County Road Commission's



right-of-way, where most residents plant their trees. By working with several residents to acquire easements, this project was built with minimal tree damage or loss. Texas Township also planted 66 new shade trees along the trail and at the trailhead area.

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