

Chatfield Campground Upgrades

Designed for Lee County, Iowa

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Chatfield Campground

Chatfield Campgrounds is located in Lee County, IA just northwest of Keokuk IA. Lee County has been upgrading their campgrounds and wants to do the same with their Chatfield site

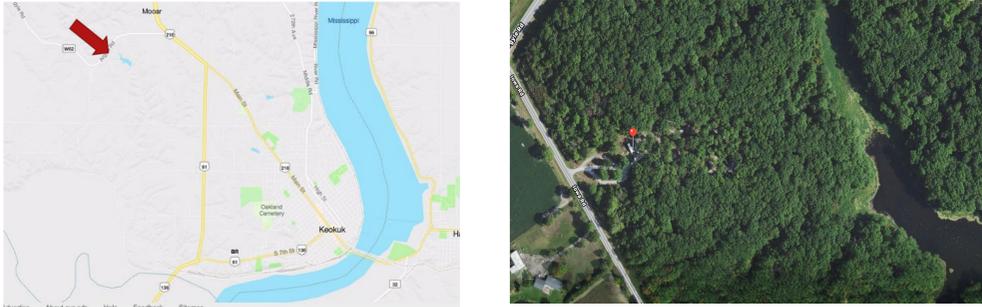


Figure 1. Location Maps of Chatfield Campgrounds

Shower-House and Pavilion Area

Shower-House and Pavilion architectural drawings used from Romtec Design Services Foundation Design for Shower-House design using 2015 IBC and Simplified Foundation Design Manual

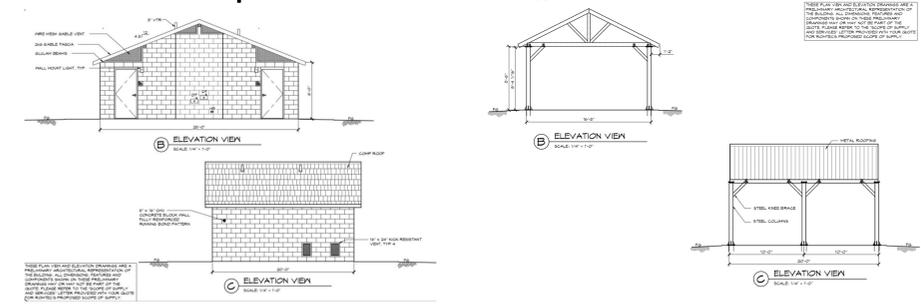
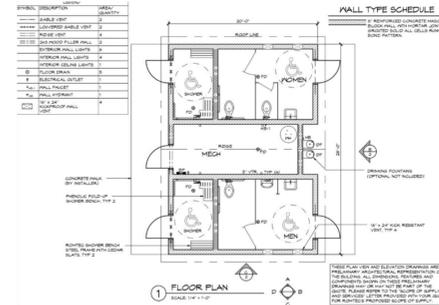


Figure 5. Shower-House (left and middle) and Pavilion Area Designs (right)

Project Scope

- Sanitary System with Septic Tank and Leach Field
- Connecting Trail With Culvert
- Shower-House/Restroom Design
- Pavilion Area
- Added Electric and Water to sites

Sanitary System

Sanitary collection and treatment system designed in compliance with Iowa DNR Ch. 69 requirements. Septic hook ups at 20 camp sites. Sand filter leach fields designed to treat septic effluent

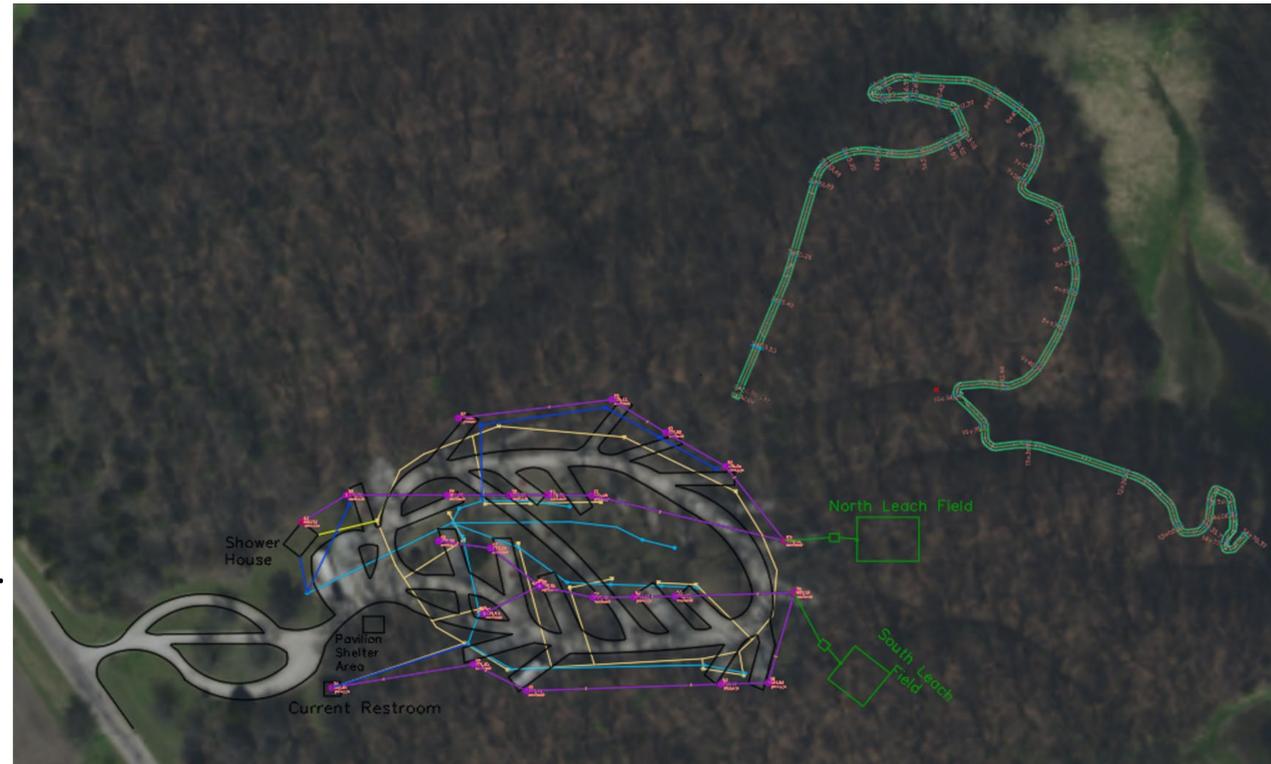


Figure 3. Full Chatfield Site plan

Cost Break Down

Table 4. Cost Break Down

Sanitary System	\$51,500
Trail & Culvert	\$89,000
Shower-House	\$104,500
Pavilion	\$27,500
Electric & Water Update	\$3,050
TOTAL COST	\$275,550

Connecting Trail with Culvert

Trail design following the National Parks Services Standards for Trail Construction for Rural Natural Trails Culvert design following Iowa Statewide Urban Design Specifications (SUDAS) Culvert specifications: 15 in diameter circular concrete culvert with square edge entrance with a headwall

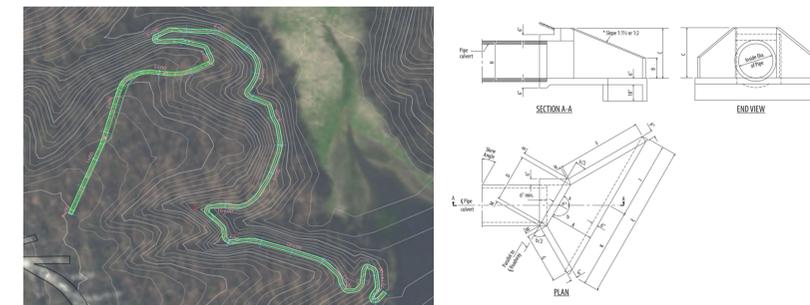


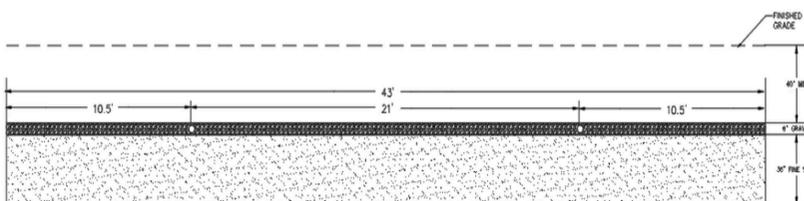
Figure 6. Trail Footprint (left) County Materials Culvert Drawing (right)

Electric and Water

Updated underground utilities. Added water to 5 camp sites and both utilities to the new shower-house



Figure 7. Electric and Water Site Plan



SOUTH LEACH FIELD SECTION VIEW

Figure 2. Sanitary System site plan (top) Cross section of Leach Field (bottom)