



MILLER ENGINEERING CONSULTANTS

Engineers • Planners

The MEC team offers over 25 years of experience in water/wastewater projects. This gives us a solid track record with the Environmental Protection Agency (EPA), and the New Mexico Environment Department (NMED), in permitting and meeting agency rules and regulations. The experience of our team in the wastewater field include facility master planning, facility design, construction observation, construction administration, environmental assessments, operator training, I/I analysis, user rate studies, start-up services, operation manuals, industrial pretreatment programs, plant performance troubleshooting, project performance, process instrumentation, and process controls. MEC's experience in the area of water resource engineering includes drainage, sewer system design, water system design, and community master planning. Our water/wastewater team has designed and administered the construction of over 100 million dollars in water/wastewater infrastructure. Listed below are a few projects that highlight our project team's specialized design and technical competence in the water resources field:

Central Corrections Facility Water & Sewer Main Upgrades

Miller Engineering Consultants, Inc.



This 1.1 Million Dollar project was designed within 3-4 weeks due to funding deadlines and water quality issues associated with the existing water wells on the site. MEC designed over 10,000 linear feet of water main and over 2,000 linear feet of sewer main with all associated appurtenances including backflow preventers, meters, hot boxes, valves, manholes, etc. The project also included the design of a micro-screening facility designed to pre-treat the wastewater prior to release to the Village of Los Lunas sewer system. The project also included the design and construction of an altitude control valve at the existing water tanks. The project also included the design of yard piping to utilize the

existing water tanks on site. Substantial coordination was required with the Village of Los Lunas, New Mexico Corrections, and the New Mexico Property Control Division.

Cuba Public Schools Water Loop

This project included the planning and design of a new 8-inch water loop for the Cuba Public Schools to improve fire flow and pressure for the High School, Middle School, and Elementary School Buildings at the Cuba Public School's Campus. The new water loop was designed to improve both domestic service and fire flow to these facilities by looping the water line around the campus and connecting to a new 8-inch line from the Village of Cuba water storage tank. This project included extensive coordination with the Village of Cuba, the State Fire Marshall's Office, the Cuba Public Schools and the School's Architect. In addition to the 8-inch water loop, the project also included the installation of new fire hydrants and valving throughout the system.

Tierra Amarilla High School & Elementary School Water System Improvements

This project included the planning and design of over 2600 feet of 6-inch water main from the municipal system to a new 75,000 gallon storage tank located at the high school. The storage tank as sized for both domestic and fire flow demand for both facilities. Both facilities also included the design of a booster pumps station capable of providing both domestic and fire flow demand to the two structures. MEC also designed over 2600 linear feet of 8-inch water line to connect the new water tank to the elementary school booster pumps station. This project included extensive coordination with the State Fire Marshall's Office, the school district, and the school's Architect.

Chilili Affordable Housing Preliminary Engineering Report

Miller Engineering Consultants, Inc.

MEC conducted a comprehensive PER for an affordable Housing Development within the Chilili Land Grant community. The scope of the study included the development of several alternative subdivision layouts, an evaluation of the existing water system, an evaluation of roadway infrastructure, and an evaluation of the drainage

infrastructure. MEC also conducted an evaluation of liquid waste collection alternatives for the project including septic tanks, central collection, package waste water treatment, and waste water evaporative lagoons.

Camp Stoney, St. Chad's Episcopal Church, County of Santa Fe, New Mexico

Miller Engineering Consultants, Inc.

MEC conducted a preliminary study of several waste water treatment alternatives for the Camp Stoney facility located in Santa Fe County. The NMED issued a compliance order for the removal and replacement of the septic tanks due to positive tests for nitrates in their monitoring wells. The study included an evaluation of several waste water treatment alternatives including white water evaporative lagoons, low pressure dispersment field, and package treatment facilities. The project also included evaluation of pumping stations and central collection of the waste water from the two existing septic tank locations. This effort included extensive coordination and meetings with the NMED Ground Water Drinking Bureau regarding the evaluation of the alternatives considered.



Northern New Mexico Wood Business Park Waste Water ARRA Project

Miller Engineering Consultants, Inc.

This project was funded as a part of the American Reinvestment & Recovery Act (ARRA)

Federally Funded Projects. This project included a comprehensive study and design of a waste water collection and treatment facility for the Northern New Mexico Wood Business Park (NNMWBP) located in Las Vegas, New Mexico. This \$350,000.00 project included the design of gravity sewer collection system, wastewater lift station, force mains, and a series of waste water evaporative lagoons. The project also included close coordination with the NMED regarding the design of the facility, discharge permitting, and the

installation of groundwater monitoring wells on the project.

City of Moriarty Sewer Extension Project

Miller Engineering Consultants, Inc.

Mr. Miller planned and designed over 2 miles of 10-inch and 12-inch gravity sewer line extension west from the City's existing sewer system. The project included boring and casing three sewer lines under Old Route 66 to provide service to both sides of the highway. Substantial coordination with the NMSHTD on easement acquisition, and permits, for the construction of the sewer line within NMSHTD right-of-way was required. The project also included evaluating the potential flow from the new service area and the potential impacts to the City's existing sewer interceptors and the wastewater treatment facility.

Escalante High School Waste Water Lagoon Project

Miller Engineering Consultants, Inc.

MEC completed the design of a central waste water collection system, a waste water pumping station, 1500 linear feet of forced main, a large wastewater evaporative lagoon, and installation of monitoring wells. This effort included coordination with the NMED on the design of the system, approval of the system, and compliance with their discharge permit.

Window Rock Teacher Housing Units, Navajo Nation, Arizona

This project included the development of two teacher housing communities in the Window Rock area. Sanitary sewer utilities, water utilities, and a grading/drainage plan were developed for each site. Each site required road design and coordination with the Navajo Tribal Utility Authority for sanitary sewer utilities and water utilities. One of the two sites also included the design of a sanitary sewer lift station.

Window Rock Middle School Improvements - Fort Defiance, AZ

This project included the design of improvements to the existing middle school campus including new building additions, parking areas, a bus loop roadway, grading/drainage, and associated utility (sewer/water) improvements. As part of the utility improvements, the project included design of a new 220,000 gallon water storage tank and pumping station to supply both domestic water and fire suppression. Approximately 3000 LF of water piping was designed to accommodate the domestic and fire flow requirements for the facility, including all appurtenances such

as hydrants, post indicator valves, gate valves, etc.

Cochiti Lake Sewer System Study & Conceptual Design, Cochiti Lake, New Mexico

MEC conducted a study phase and conceptual design for approximately 5.5 miles of sanitary sewer gravity main located within the Village of Cochiti Lake, New Mexico. The project induced comprehensive camera work on all sewer main and evaluation of the camera footage to determine the condition of all segments of sewer main within the project limits. The study phase of the project included the evaluation of several construction alternatives to address the deficient segments of sewer main including both open trench and trench-less technologies such as slip-lining & pipe-bursting. MEC prepared conceptual design drawings which included a combination of open trench, pipe bursting and manhole rehabilitation. The conceptual design served as the basis for the development of an engineer's opinion of probable construction cost, which will be used to seek funding for the construction of the project.

Camp Stoney, St. Chad's Episcopal Church, County of Santa Fe, New Mexico

MEC conducted a preliminary study of several waste water treatment alternatives for the camp Stoney facility located in Santa Fe County. The NMED issued a compliance order for the removal and replacement of the septic tanks due to positive test for nitrates in their monitoring wells. The study included an evaluation of several waste water treatment alternatives including a lagoons system, low pressure dispersement field, and package treatment facilities. The project also included evaluation of pumping stations and central collection of the waste water from the two existing septic tank locations. This effort included extensive coordination and meetings with the NMED Ground Water Drinking Bureau regarding the evaluation of the alternatives considered.

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