

New Mexico

Outstanding Architecture The Explora Science Center and Children's Museum



PHOTO BY K. ROBERT WENDEL

Owner: City of Albuquerque
Architect/Design: Mahlman & Miles Architects
General Contractor: New Mexico SAM Corp.
Structural Engineer: Bacchus Consulting Engineers
MEP Design: P2RS/Telcon
Civil: Jeff Mortensen and Associates
Landscaping: Sites Southwest
Electrical: Raeco Electric
Concrete: Noel Construction
Steel: W & W Steel/Hughes Steel
Mechanical: Anasazi Plumbing and Heating
Masonry: Mason Craft
Site work: Chava Trucking

This eclectic building completes the “Museum Triangle” organized around Tiguex Park in Albuquerque. The museum is the new home for a broad program of informal educational experiences combining art, science and culture.

The museum is conceived to integrate architecture and exhibits into a unifying and captivating experience, with the exposure of structural and mechanical elements contributing to the merger of building and exhibition. The experience starts at the entrance, with a “whisper dome” that magnifies voices and sound through the use of vibration. Other built-in exhibits include a high-wire bicycle, a giant lever and a jump jet fountain.

The building’s gallery design encourages the free flow of movement of patrons, allowing parents to let their children roam just a bit more without losing sight of them. The sighting of the building also allows excellent views of the mountain ranges that ring the city.

Because of the building’s eclectic design, architects used a variety of finishes, including standing seam metal panels, masonry and exposed concrete, creating a composition of smaller masses. The building also uses four different roof systems. ♦

best of 2002

Outstanding Private Building
Yates Petroleum Office Building

New Mexico



PHOTO COURTESY OF Dekker/Perich/Sabatini

Owner: Yates Petroleum
Architect/Design: Dekker/Perich/Sabatini
General Contractor: Jaynes Corporation
Structural Engineer:
MEP Design: Bridgers and Paxton
Civil: Smith Engineering
Landscaping: Morrow Reardon Wilkinson Ltd.
Electrical: Gamblin Rodgers
Concrete: Southwest Concrete Construction, Inc.
Steel: AmFab
Mechanical: Miller Bonded Inc.
Masonry: Moyer Masonry
Site work: Lafarge Corporation

Located in Artesia, N.M. the Yates Petroleum Building anchors the downtown area with more than 200 employees in this 94,721-sq.-ft. building that serves as company headquarters.

The building features a storefront on Main Street along with access for employees at the rear of the facility. Brick pavers at street intersections help blend the building in, creating a plaza effect. Site improvements include large decorative concrete courtyards at entrances and alleyways, a water fountain feature and shade tree landscaping. There is also a 36-car parking lot.

An aerial walk-way connects the three sections of the building together, while the interior architecture features exposed steel columns to evoke the characteristic of an oil rig. Because of the nature of the company's business, an extremely large communications and data fiber optics system was incorporated into the design.

The engineering and geologist offices feature a magnetic wall system built from 22-gauge sheet metal mechanically fastened to the drywall. Magnets attach maps and engineering drawings to the wall. ♦

best of 2002

New Mexico

Outstanding Public Building Chaves County Administration Building

PHOTO COURTESY OF DCSW ARCHITECTS



Owner: Chaves County
Architect/Design: DCSW Architects
General Contractor: Luther Construction Company
Structural Engineer: Smith Engineering/
Jaques Engineering
MEP Design: CME Inc.
Landscaping: Morrow and Reardon
Concrete: Jaynes Corp.
Steel: Ramsey Steel
Mechanical: Polson & Grady
Masonry: Beaty Construction
Site work: Armstrong Construction ➤

New Mexico

best of 2002

This 70,000-sq.-ft. project consolidates many offices for Chaves County, including sheriff's offices, planning and zoning, the treasurer and other administrative functions.

The focal point of the building is the Grand Rotunda Lobby, with the county commission chambers centered on the main axis of the building, which occupies a 10-acre site. Owners chose durable, long-life materials for all systems, with a building exposure allowing optimum passive solar exposure. Daylighting is used extensively throughout the building, which also features architectural shading on the south side. Energy efficient lighting is used, as are occupancy sensors, along with low-flow plumbing fixtures and water harvesting for landscaping. Clerestory and large shaded windows also introduce light into the space.

Because of the sheriff's office component, security is extremely high due to law enforcement functions and confidentiality issues. The facility features electronic locking, swipe cards and CCTV monitoring. The project also utilizes concrete bollards for force protection against outside attack.

Other site improvements include public and staff plazas, drive through payment windows, parking and dedicated storage for each county department's needs. ♦



PHOTO COURTESY OF BPLW ARCHITECTS

Owner: Public Service Company of New Mexico
Architect/Design: BPLW Architects
General Contractor: Jaynes Corporation
Structural Engineer: BPLW Architects
MEP Design: BPLW Architects
Civil: BPLW Architects
Landscaping: Baker-Morrow
Electrical: Gormac Electric
Concrete: Concrete Frame Associates/
Post Tension Reinforcing Services Inc.
Steel: Structural Services Inc.
Mechanical: Hanna Plumbing & Heating
Masonry: Monarch Masonry
Site work: Coronado Wrecking/
Custom Grading Inc./Hilltop Landscaping

The owner's directive was that the structure not look like the typical "urban parking structure", respect the surroundings and provide PNM with a signature structure in the Downtown area.

This 520-space structure is constructed on less than a one-half block site in downtown Albuquerque. The 198,000-sq.-ft. parking structure is cast-in-place, post-tensioned concrete and features eight parking levels with access controlled at the street level.

Rather than a standard "static" design, the design team chose to express motion in the exterior fenestration by using aluminum panels in a wave design to express motion. Decorative aluminum panels with fiber optic lighting were used on the south side of the structure and colored glass over steel frame on each of the corners. The glass was painted in varying shades of blue to give it the effect of the New Mexico sky. ♦

best of 2002

Editor's Choice
Outstanding Civil Engineering
Metro Detention Center Well Supply

New Mexico

Owner: City of Albuquerque
Engineer: Boyle Engineering Corp.
General Contractor: RMC Inc.
Masonry: Beaty Construction
Mechanical: Hanna Plumbing
and Heating
Electrical: McDade-Woodcock

High salt and arsenic levels in the ground water meant a new water treatment facility for the Metropolitan Detention Center in Bernalillo N.M.

Contractors constructed manganese green sand filters for the initial filtration, combined with an electro dialysis reversal desalination system and a degasification tower to remove hydrogen sulfide.

The utilizes high voltage DC current to remove salt and other excess minerals from the product water, with the waste from the process stored in backwash tanks and then used for system cleaning.

The entire treatment system, including the well head, are automated through a supervisory control system operated through radio communications with the main city of Albuquerque operations station. The instrumentation gives real time read-outs on the current water quality and the efficiency of treatment and filtration. This allows the system to function unmanned and with little human interface.

In addition to the water treatment facility, the site also features a 625,000-gallon steel storage reservoir for fire suppression and a 250,000-gallon elevated steel storage reservoir. ♦

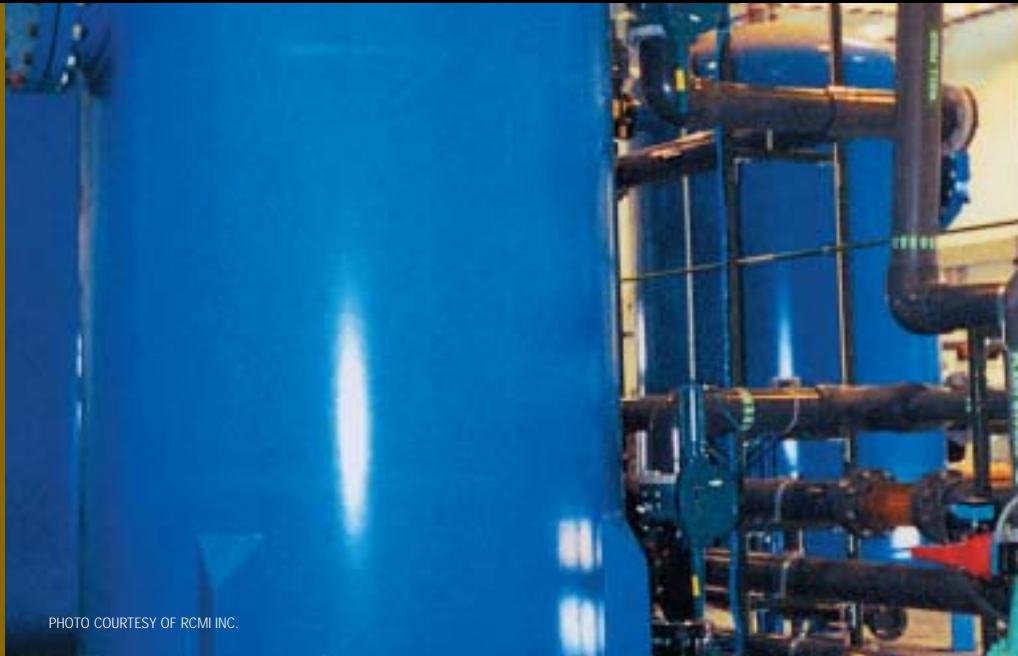


PHOTO COURTESY OF RCM I INC.

New Mexico

Outstanding Renovation Eddy County Courthouse



PHOTO COURTESY OF NIMS CALVANI & ASSOCIATES

Owner: Eddy County
Architect/Design: Nims Calvani & Associates
General Contractor: Greer Construction
Structural Engineer: Chavez Grieves
MEP Design: Brown Engineering/Telcon
Landscaping: C & R Landscaping
Electrical: Merle Electric
Concrete: Southwest Concrete
Steel: MSS Enterprises
Mechanical: Enoch Mechanical
Masonry: Mayer Masonry
Site work: LaFarge

This historic, four-story courthouse was built in the early 1920s and has seen numerous renovations. The main focus of this most recent renovation was to consolidate the courts, sheriff and district attorney offices within the facility. In addition, the building required extensive repairs due to wear and tear over the years.

After extensive reviews for the best solution, architects chose to renovate the building and add another 5,000-sq.-ft. entry, allowing individual floors for the sheriff, attorneys and courts. Corridors were meticulously detailed to match the original condition, as were ceilings, floors and walls. Tile wainscots, echoing an earlier era, were also used. Historic light fixtures were removed, refurbished and replaced and the main entry doors were photographed and completely reconstructed to match their original design.

A plaza was designed at the junction of the new addition and renovated courthouse and is anchored by a stacked stone fountain. The space is defined by a channel of running water that cuts through the plaza, representing the Pecos River. ♦

Best of 2002

*Outstanding Infrastructure/Water
Pueblo Canyon Sewer Replacement*

New Mexico

Owner: Las Alamos County
Engineer/Design: Camp Dresser & McKee
General Contractor: RMC Inc.
Civil: AMEC Earth and Environmental
Landscaping: Heads Up Landscaping
Site work: DH Underground >

PHOTO COURTESY OF RMC INC.



best of 2002

Outstanding Infrastructure/ Water Pueblo Canyon Sewer Replacement

Stormwater run off damage enabled by the Cerro Grande fire that ravaged Los Alamos County meant the replacement of 13,500 linear feet of sewer pipe.

Approximately 5,000 ft. of the project was microtunneled, while another 4,000 ft. was replaced using auger boring. Also, 4,500 ft. of open trench work included the installation of 62 pre-cast manholes, replacing eight existing sewer laterals and the construction of six stream crossings.

Construction efforts had to be kept in confined zones due to the area's environmental sensitivity in a narrow canyon with steep slopes. Crews also had to contend with freezing temperatures, snowfall, limited light and flash flooding ♦

best of 2002



PHOTO BY GERALD MARTIN INC.

Owner: University of New Mexico
Architect/Design: Mazria Riskin Odems Inc.
General Contractor: Gerald Martin Inc.
Structural Engineer: Chavez Grieves Engineers
MEP Design: Bridgers & Paxton
Landscaping: Accent Landscaping
Electrical: Lynx Electric
Concrete: Gerald Martin Inc.
Mechanical: Donner Plumbing
Masonry: Vernon Tile

The new, \$5.3 million building, which is an addition to the existing law school, will expand the capacity

and capabilities of the university's law school, with new classroom additions as well as the construction of two mock courtrooms to be used by students in theoretical law cases.

Because of the project's location next to a golf course, siting options were limited, with the building facing the western sun.

An ingenious - and elegant - solution presented itself in the form of concrete fins, which shifted the glass from a west facing perspective to a more northerly perspective, cutting the afternoon glare while still allowing light in. The concrete fins also break the massing on the building's west side.

Rather than using a precast solution, which would have required a host of joints, Albuquerque contractor Gerald A. Martin LTD employed two-sided Peri gang forms to pour more than 2,500 cu. yds. of concrete, including a 39-ft. tall by 26-ft. wide, 12-in. thick wall that was poured in one shot.

While keeping the western sun from boiling the budding lawyers, architects still wanted as much natural light as possible. A central corridor with an open floor plan allows light to flood the school through green-tinted glass arbor on the concrete building. More than 13,000 sq. ft. of glass was required for the school, allowing plenty of light while creating an open and inviting atmosphere. ♦

Best of 2002

New Mexico

Outstanding Masonry
Bernalillo County
Metropolitan Detention Center

PHOTO COURTESY OF DCSW ARCHITECTS



Owner: Bernalillo County
Architect/Design: DCSW Architects/
Custer Basarich LTD
Construction Manager: Morrison-Knudsen Corp.
General Contractor: Bradbury & Stamm/K.L. House
Structural Engineer: BPLW Architects and Engineers
MEP Design: P2RS Group
Civil: BPLW Architects and Engineers
Landscaping: Morrow & Reardon
Electrical: DKD Electric/U.S. Electric
Concrete: Ferreri Concrete Structures
Steel: D'Ambra Steel Services
Mechanical: Miller Bonded Inc.
Masonry: Beaty Construction Company

This 2,200 bed jail is a modern, direct supervision detention facility designed to provide state-of-the-art security for 2,100 inmates and includes a medical suite, detox center and three levels of security.

The project kitchen, utilities and site infrastructure are all designed for future expansion of up to 5,000 beds on a 150-acre site.

Housing clusters are designed as a modular combination of eight, 64 inmate pods that have interchangeable dimensions and structure for cell or dormitory housing. ♦

best of 2002

Outstanding Mechanical/Electrical Cogeneration Facility Upgrade and Expansion Project

New Mexico

Owner: City of Albuquerque
Engineer/Design: Molzen Corbin & Associates
General Contractor: RMC Inc.
Electrical: McDade-Woodcock
Concrete: Post Tensioning Reinforcing Services
Steel: Mid-States Erectors Inc.
Mechanical: Air Tech
Masonry: R.S. Masonry
Site work: Custom Grading Inc.

Designed to reduce the Albuquerque Southside Reclamation Plant's dependence on a local utility's power supply, the plant features two, natural gas fired generators.

Two masonry buildings were constructed at the plant, which also features new cooling towers, heat exchangers and load balancing radiators.

A maze of complex instrumentation was required by the plant, with most it crammed into approximately 1,000 sq. ft. ♦



PHOTO COURTESY OF RMC

Outstanding Interior, Editor's Choice
AFD Fire Station 20

New Mexico



PHOTO COURTESY OF KIRK GITTINGS PHOTOGRAPHY INC.

Owner: City of Albuquerque
Architect/Design: Rohde May Keller McNamara
Architecture P.C.
General Contractor: Rio Conchos Corp.
Structural Engineer: JJK Group
MEP Design: FEI Brown Engineering/
RMS Engineering
Civil: Larry Read and Associates
Landscaping: Consensus Planning Inc.
Electrical: Randy's Electric
Concrete: Cedars Construction
Steel: Duran Steel Fabricator
Mechanical: Anasazi Plumbing
Masonry: Bob Davis Masonry
Site work: Romero Excavating and Trucking

This new fire station is a collaborative project of multiple agencies including the Albuquerque Fire Department, Police Department and Community Department of the city.

The project relies on a material palette of reinforced concrete masonry and precast concrete, along with structural steel with bullet proof glass. Interior architecture is complemented by wood panel walls, stainless steel kitchen case-work and sealed concrete floors.

The project integrated crime prevention through design principles and anti terrorism force protection requirements, as well as environmentally friendly technologies including daylighting, sustainable materials, radiant floor heating and multiple vehicle exhaust extraction techniques. ♦

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