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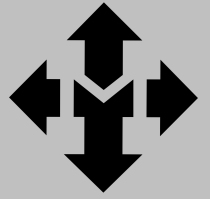
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ENGINEERING



ROOFING & PAVING
CONSULTING &
BIM

LANDSCAPE
ARCHITECTURE



LASER SCANNING
& LAND SURVEYING



STRUCTURAL
ENGINEERING



CIVIL
ENGINEERING



McNeil Engineering's

Departments

Landscape
Architecture

Roofing & Paving
Consulting & BIM

Civil
Engineering

Laser Scanning &
Land Surveying

Structural
Engineering



McNEIL ENGINEERINGTM

Economic and Sustainable Designs, Professionals You Know and Trust

Our Skilled Professionals Deliver Expertise in:

Civil Engineering:

- Land development services
- Site feasibility studies and due diligent analysis
- Site layout
- Road design
- Grading design and earthwork analysis
- Drainage analysis and storm drain system design
- Storm water detention system analysis and design
- Erosion control measures & SWPPP
- Water system analysis and design
- Sanitary sewer system design
- Subdivision design
- 3D models
- UDOT access and encroachment permits
- Permitting and Entitlement assistance with cities, counties and state agencies

3D Laser Scanning & Land Survey:

- ALTA/NSPS Land Title Surveys
- Topographic/ Utility Surveys
- Route and Boundary surveys
- Construction Staking
- GIS Data acquisition
- Cadastral and Retracement Surveys
- Subdivision Plat
- Condo Plat
- BIM/3D Model
- As Built Scan
- Historical Preservation
- Forensic/Insurance Investigation
- Drones

Landscape Architecture:

- Site Design
- Master Planning
- Irrigation Design
- Landscape Design
- Plaza & Paving Design
- Grading & Drainage Plans
- Site & Landscape Remodel
- Cost Estimating & Budgeting
- Construction Administration
- Permitting & City Approvals
- Illustrative & Graphic Design
- Signage & Gateway Design

Structural Engineering:

- Constructability Analysis
- Seismic Analysis
- Force Protection Blast analysis and Design
- Alternative Designs for construction Cost and Time Savings
- Structural Analysis, Design, Specifications and Construction Documentation
- Field Observation and Construction Management
- Reinforced, Precast Tilt Up and Prestressed Concrete
- Precast Concrete Production, Transport and Erection
- Post Tension Concrete Design
- Steel, Masonry and Timber Design
- Construction Products and Materials Development
- Structural Investigation and Reports
- Structural Damage and Failure Analysis
- Repair, Re-strengthening and Retrofitting of Structures
- Crane Design & Analysis
- HUD Permanent Foundation Analysis
- Fire and Disaster Investigation and Analysis

Paving Consulting:

- New Parking Lot Design
- Re-Engineering of Existing Parking Lots
- Existing Condition Analysis
- Project Scoping and Opinion of Probable Costs
- Drainage and Slope Solutions
- Concrete Parking Structure Evaluation
- Pavement Structure Analysis and Design

Roofing Consulting:

- New Roof System Designs and Construction Oversight
- Design and Construction Oversight for Replacement of Existing Roof Systems
- Roof Overbuild Design
- Existing Roof Condition Analysis
- Project Scoping and Opinion of Probable Costs
- Recommendations and Instruction for Roof Systems Maintenance
- Humidity/Condensation Analysis

Industries Served:

Federal, State and Local Governments:

- Airports
- State Capitol
- Department of Transportation
- Department of Facilities and Construction Management
- Water Treatment
- Water Districts
- Parks and Recreation
- Utilities
- Various Municipalities/Counties

Public Buildings:

- Fire/Police Stations
- Hospitals/Healthcare Facilities
- Libraries
- Museums
- Cultural Arts
- Schools and Universities

Private Development:

- Commercial
- Manufacturing
- Warehouse
- Industrial/Refineries
- Residential
- Retail
- Single Family Subdivisions
- Multi-Family
- Multi-Use
- Transportation
- Mining
- Historical Preservation
- Hospitality
- Athletic Venues

Private Companies:

- Architects
- Developers
- Manufacturers
- Engineers
- Lawyers
- Restaurants/Fast Food

Religious:

- Church of Jesus Christ of Latter Day Saints – Hundreds of Chapels and Church Facilities
- Catholic Church – Multiple Churches
- Korean Presbyterian
- Lutheran Church
- Risen Life Church
- Pentecostal Church
- Lifestone Church
- Episcopal Church
- Baptist Church



COMMERCIAL/RETAIL/MIXED USE

PROJECT HIGHLIGHT 21 & View - Salt Lake City, UT

21 & View is a sustainable mixed-use apartment and commercial development in the Sugar House neighborhood of Salt Lake City. McNeil Engineering's team of Landscape Architects, Civil and Structural Engineers and Surveyors completed the landscape and engineering design and surveying for this prime piece of real estate that overlooks Sugar House Park. The site consists of two buildings containing 29 luxury apartments and roughly 3,500 square feet of commercial space connected by an open-air walkway.

Situated on the most convenient and scenic corner in Sugar House, this development is an exciting addition to the Sugar House neighborhood. The Salt Lake City skyline and the beauty of Sugar House Park paint the canvas for this property which offers picturesque views of the Wasatch and Oquirrh Mountain ranges. 21 & View is truly one of the best locations to live and work in Salt Lake City



PARTIAL PROJECT LIST

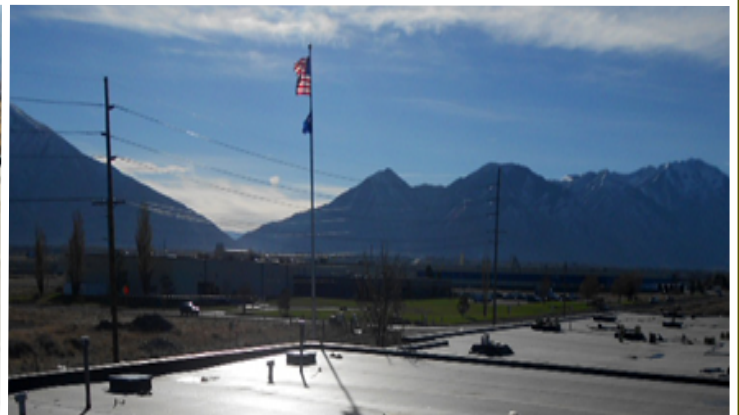
- **Wilmington Gardens;** Structural Engineering, Civil Engineering, Laser Scanning & Survey
- **Fashion Place Mall;** Landscape Architecture, Structural Engineering, Civil Engineering, Laser Scanning & Survey
- **Legacy Village @ Sugarhouse;** Civil Engineering, Laser Scanning & Survey
- **Gateway;** Civil Engineering, Laser Scanning & Survey
- **Oquirrh Mountain Marketplace;** Landscape Architecture, Structural Engineering, Civil Engineering, Laser Scanning & Survey
- **University Crossing;** Civil Engineering, Laser Scanning & Survey
- **Jordan Landing;** Landscape Architecture, Structural Engineering, Civil Engineering, Laser Scanning & Survey, Roofing Consulting
- **Sugarhouse Crossing;** Landscape Architecture, Structural Engineering, Civil Engineering, Laser Scanning & Survey
- **Kimball Plaza;** Landscape Architecture, Structural Engineering, Civil Engineering, Laser Scanning & Survey, Paving Consulting
- **Pioneer Plaza;** Landscape Architecture, Civil Engineering, Laser Scanning & Survey

INDUSTRIAL/ MANUFACTURING/ WAREHOUSE

PROJECT HIGHLIGHT Spanish Fork Armory - Spanish Fork, UT

At this site, the Utah State Department of Facilities Construction and Management (DFCM) was in the process of renovating the existing structure due to contamination from faulty mechanical systems. During this process they determined that much of the finishes on the structure would require replacement, including the roofing.

We met with the DFCM Project Manager and the contractor currently assigned to complete the interior work. We then coordinated our design efforts with their construction schedule and consulted with the mechanical sub-contractor to assure protection of any systems designated to remain and to repair any roof penetrations now deemed unnecessary because of the renovation. We replaced the entire single-ply membrane system with new, including raising mechanical units to provide adequate flashing at all mechanical curbs.



PARTIAL PROJECT LIST

- **Big West Oil;** Civil Engineering, Laser Scanning & Survey, Structural Engineering
- **Price Building 6, 7, 8 & 9;** Laser Scanning & Survey, Civil Engineering
- **Delaware Firearm Training Facility;** Structural Engineering
- **UPS Orem Center;** Structural Engineering, Civil Engineering, Landscape Architecture
- **Merit Medical;** Laser Scanning & Survey, Civil Engineering, Structural Engineering, Landscape Architecture
- **Praxiar;** Laser Scanning & Survey
- **Andeavor (Tesoro);** Laser Scanning & Survey, Civil Engineering
- **Sinclair Oil;** Structural Engineering, Laser Scanning & Survey
- **Quality Steel;** Laser Scanning & Survey, Civil Engineering
- **Kauai Power Plant;** Structural Engineering
- **In-N-Out Burger Warehouse;** Civil Engineering, Laser Scanning & Survey, Landscape Architecture
- **Deseret Manufacturing;** Laser Scanning & Survey, Roofing Consulting
- **South Valley Water Reclamation Facility;** Laser Scanning & Survey
- **Pride Transport;** Laser Scanning & Survey, Civil Engineering

OFFICE BUILDING

PROJECT HIGHLIGHT Millrock Technology Park - Holladay, UT

McNeil Engineering was retained to provide civil engineering design services for an extremely challenging 21-acre site in the foothills of Holladay City. The 5-lot technology parks includes 500,000 square feet of office space in 4 buildings terraced across a site with 150 feet of slope from east to west.

McNeil Engineering worked closely with U.D.O.T. to design a signalized intersection for access to the site on a steep section of State Road 210. Plan and profile drawings were prepared for the roadway and utilities which involved the design of a complex retaining wall system and coordination with several municipalities. Two parking structures were designed for the site containing 1700 parking stalls with at grade access to 5 different levels. With limited area available for storm water detention, a series of underground storage systems were designed beneath the parking structures to maximize developable area. The project was a tremendous success winning several industry awards including "Best of State Project".



PARTIAL PROJECT LIST

- **Ridge Rock Construction Office;** Landscape Architecture, Civil Engineering, Structural Engineering, Laser Scanning & Survey, Consulting
- **Advocates Law Office;** Civil Engineering, Laser Scanning & Survey
- **Graymont;** Landscape Architecture, Civil Engineering, Laser Scanning & Survey
- **Tierra Rainbow Business Park;** Landscape Architecture
- **DFCM Administration Building;** Paving Consulting
- **USANA;** Civil Engineering
- **515 Tower;** Paving Consulting, Structural Engineering
- **Draper Business Park;** Landscape Architecture, Civil Engineering, Laser Scanning & Survey
- **S&S Office Building;** Structural Engineering
- **Silver Creek Office Building;** Structural Engineering
- **North Pointe Business Park;** Laser Scanning & Survey
- **Woodlands Business Park;** Structural Engineering, Laser Scanning & Survey
- **Old Mill Business Center;** Laser Scanning & Survey

MULTI-FAMILY RESIDENTIAL APARTMENT/TOWNHOMES/CONDOMINIUMS

PROJECT HIGHLIGHT Encore Apartments - Salt Lake City, UT

The Encore project is a luxury living complex with 2 levels parking, 5 Levels timber framed with 189 apartments. Included amenities include a rooftop courtyard with spa, dog park, outdoor fireplace and barbecue areas.

The design team worked to design the structure using CAD software Revit Structures; fully integrated physical and analytical modeling software for use in BIM design.

The project was constructed with post tensioned floors for the parking and podium levels with concrete walls and columns and 2x timber walls with prefabricated trusses for the floor and roof structure and masonry stair and elevator towers.



PARTIAL PROJECT LIST

- **Ridge Apartment;** Landscape Architecture, Civil Engineering, Structural Engineering, Laser Scanning & Survey
- **Liberty Center;** Civil Engineering, Laser Scanning & Survey
- **Liberty Crest;** Civil Engineering, Laser Scanning & Survey
- **Liberty Boulevard;** Civil Engineering, Structural Engineering Laser Scanning & Survey
- **West Temple Apartments;** Paving Consulting
- **Euclid Corners;** Landscape Architecture, Civil Engineering, Structural Engineering, Laser Scanning & Survey
- **Zion Garden Apartments;** Paving Consulting
- **Callaway Apartments;** Roofing Consulting
- **Travers Mountain Apartments;** Structural Engineering
- **Westgate Townhomes;** Civil Engineering, Structural Engineering
- **Holladay Boulevard Estate Condominiums;** Laser Scanning & Survey
- **Snow Flower Condominiums;** Roofing Consulting
- **Sky Harbor Apartments;** Civil Engineering, Structural Engineering, Laser Scanning & Survey, Consulting
- **High Tower Apartments;** Landscape Architecture

SINGLE FAMILY RESIDENTIAL SUBDIVISIONS

PROJECT HIGHLIGHT Okubos Subdivision - West Jordan, UT

This new 3 Phase 20 acre subdivision is located along 90th South at approximately 2150 West in West Jordan. When completed the project will have 49 residential lots.

McNeil Engineering provided all the surveying and engineering design for this project as well as construction management. Key design elements included the HEC-RAS modeling of the South Jordan Canal. This project involved coordination with West Jordan City, UDOT, Salt Lake County and 2 canal boards.



PARTIAL PROJECT LIST

- **Echo Ridge Subdivision;** Landscape Architecture, Laser Scanning & Survey, Civil Engineering
- **Fullmer Subdivision;** Landscape Architecture, Laser Scanning & Survey, Civil Engineering
- **Okubo Subdivision;** Landscape Architecture, Laser Scanning & Survey, Civil Engineering
- **Pearl Cove Subdivision;** Laser Scanning & Survey, Civil Engineering
- **Hard Rock Subdivision;** Laser Scanning & Survey, Civil Engineering
- **Bella Vea Phase 1;** Laser Scanning & Survey
- **Pine Shadow Subdivision;** Laser Scanning & Survey, Civil Engineering
- **Preston Park Subdivision;** Landscape Architecture, Laser Scanning & Survey, Civil Engineering
- **Alpine Cove Subdivision;** Laser Scanning & Survey, Civil Engineering
- **Spratling Wood Subdivision;** Laser Scanning & Survey
- **White Hills Subdivision;** Laser Scanning & Survey
- **Rose Canyon Subdivision;** Laser Scanning & Survey, Civil Engineering
- **Highland Ridge Subdivision;** Laser Scanning & Survey, Civil Engineering

PROJECT HIGHLIGHT Intermountain Healthcare Riverton Hospital - Riverton, UT

In 2006, McNeil Engineering was commissioned by the San Francisco based architectural firm, Anshen + Allen (currently Stantec) as the Landscape Architectural consultant for the proposed Intermountain Healthcare Riverton Hospital. Located just off Bangerter Highway and 12600 South, Riverton, Utah in the rapidly growing section of Salt Lake County, this facility serves individuals throughout Salt Lake and Utah Counties to better serve the increased demand for health care needs along the Wasatch Front.

The hospital is located on a sixty-seven (67) acre site and provides southwest valley residents with access to a full range of clinical services from outpatient radiology to general surgery to women's and birthing services. The campus includes a four-story hospital, a four-story Primary Children's Medical Center outpatient facility and a four-story physician office building. The owner's goal was to create an environment that while functional, will also serve as a healing and soothing space for patients and visitors. The owner and consultant team worked closely with the city to meet local ordinances as well as develop a facility that will stand as a beacon to quality healthcare for years to come.

In 2014, McNeil Engineering was again commissioned by HDR Architecture to provide Landscape Architectural consulting services for a 4-story Outpatient Building Expansion. This addition included the expansion of parking lots and landscaping as well as the development of an outdoor Physical Therapy Courtyard. Sustainable design practices were implemented throughout the site and landscape design and the project is expected to obtain a Silver LEED rating when completed.



PARTIAL PROJECT LIST

- **Valley Mental Health;** Paving Consulting, Laser Scanning & Survey, Civil Engineering
- **Davis Behavioral Health;** Structural Engineering
- **Millard County Public Health;** Structural Engineering
- **Salt Lake County Health Center;** Civil Engineering
- **VA Hospital;** Laser Scanning & Survey, Structural Engineering
- **St. Mark's Hospital;** Laser Scanning & Survey
- **Ft. Carson Hospital;** Structural Engineering
- **Intermountain Healthcare**
 - **Altaview Hospital;** Landscape Architecture, Structural Engineering
 - **McKay Dee Hospital;** Structural Engineering, Laser Scanning & Survey
 - **American Fork Hospital;** Laser Scanning & Survey
 - **LDS Hospital;** Laser Scanning & Survey
 - **Utah Valley Regional Medical Center;** Laser Scanning & Survey
 - **Dixie Regional Medical Center;** Laser Scanning & Survey
 - **TOSH;** Laser Scanning & Survey

PROJECT HIGHLIGHT Wendover Airport - Wendover, UT

McNeil Engineering provided topographic and utility information for Aviation for the purpose of designing new taxiways and service road. The project consisted of approximately 130 acres.

Vertical tolerances for this project were 0.01 feet. In order to meet these requirements McNeil Engineering used laser scanning and digital level techniques to achieve the desired results. Initial control points were established at a 200 foot grid using VRS GPS and then all control points had elevations established using digital levels, where tolerances of under 0.01 feet were achieved. After horizontal and vertical control were established and verified to meet minimum requirements, McNeil Engineering used their Leica C10 scanner, which collects 50,000 survey grade points per second, to survey the entire site. McNeil Engineering used targets on the existing control points and with compensated level scans as constraints, they were able to meet the desired deliverable for the client.



PARTIAL PROJECT LIST

- **Salt Lake International Airport;** Structural Engineering, Civil Engineering, Laser Scanning & Survey; Consulting
- **Ogden Airport;** Structural Engineering
- **LAX;** Laser Scanning & Survey
- **Provo Airport;** Landscape Architecture
- **Utah Transportation Building;** Roofing Consulting
- **Bluff Street & I-15 Interchange;** Civil Engineering
- **4000 West, 11400 to 11800;** Civil Engineering, Laser Scanning & Survey
- **205th Street, Torrance, CA.;** Laser Scanning & Survey
- **Port of Brisbane Motorway;** Laser Scanning & Survey
- **UTA Front Runner South, Salt Lake to Provo;** Structural Engineering, Civil Engineering
- **Godfrey Trucking;** Structural Engineering
- **Gordon Trucking;** Civil Engineering
- **Pride Transport;** Structural Engineering, Civil Engineering, Laser Scanning & Survey
- **New York Subway System;** Laser Scanning & Survey
- **Soo Locks Canal;** Laser Scanning & Survey

PROJECT HIGHLIGHT Hillcrest Jr. High School - Murray, UT

Hillcrest Jr. High School is located on the corner of State Street and 5300 South in Murray, Utah. The original Hillcrest Jr. High was built back in 1911 and has had several additions over the years. Since it was built, thousands of students and teachers have walked the halls, hundreds of band and choir concerts performed, and many lessons taught. The old building was replaced by a new state of the art learning facility. McNeil Engineering had the privilege of providing civil engineering and survey services on this project. This included completing an ALTA/Topographic Survey and subdivision plat, site layout design, grading and drainage design, erosion control measures and design and relocation of utilities.



PARTIAL PROJECT LIST

- **Weber State University-Multiple Projects;** Landscape Architecture, Roofing Consulting, Laser Scanning & Survey, Structural Engineering
- **University of Utah-Multiple Projects;** Laser Scanning & Survey, Civil Engineering, Landscape Architecture, Structural Engineering
- **Utah Valley University-Multiple Projects;** Roofing Consulting, Structural Engineering
- **Snow College-Multiple Projects;** Roofing Consulting, Laser Scanning & Survey, Structural Engineering
- **Westminster College;** Laser Scanning & Survey, Civil Engineering
- **Salt Lake Community College-Multiple Projects;** Laser Scanning & Survey, Structural Engineering
- **University of Nevada-Reno;** Structural Engineering
- **Herriman High School;** Structural Engineering
- **Manilla High School;** Roofing Consulting, Structural Engineering, Civil Engineering, Laser Scanning & Survey
- **Thunder Ridge High School;** Structural Engineering
- **Murray High School;** Civil Engineering, Laser Scanning & Survey
- **Judge Memorial High School;** Laser Scanning & Survey

RESTAURANT/ENTERTAINMENT

PROJECT HIGHLIGHT Rush Street Restaurant - Culver City, CA

The project involved the conversion of a 75 year old sign/welding shop into a high end restaurant. Our scope of work included performance of site investigation survey to determine the existing building's structural elements, performance of a seismic structural analysis of the 75 year old un-reinforced masonry structure and design of retrofits to bring the structure into compliance with the strict provisions of the California Building Code and LA City Building Code requirements.

The structural design was difficult because the project budget was very limited and due to the change of occupancy the entire structure had to be retrofitted to meet the currently adopted code.

In addition to the change of occupancy, a new mezzanine was added. This project is located in the highest seismic design category in the United States. No record documents of this structure were available so the site investigation was critical to the overall structural analysis.



PARTIAL PROJECT LIST

- **In-N-Out Burger-Several Utah Location;** Civil Engineering, Laser Scanning & Survey, Landscape Architecture
- **Del Taco-Several Utah Location;** Civil Engineering, Laser Scanning & Survey, Landscape Architecture
- **Outback Steakhouse;** Civil Engineering, Laser Scanning & Survey, Landscape Architecture
- **Cedar Hills Golf Course;** Laser Scanning & Survey
- **Vivint Smart Home Arena;** Laser Scanning & Survey
- **Rio Tinto Stadium;** Structural Engineering
- **Glenmoore Golf Course;** Laser Scanning & Survey
- **Camelback Ranch-Dodger & White Sox Spring Training Facility;** Laser Scanning & Survey
- **Subway Restaurant-Several Utah Location;** Structural Engineering
- **Toscana Restaurant;** Civil Engineering, Laser Scanning & Survey, Landscape Architecture
- **USANA Amphitheater;** Structural Engineering
- **Capitol Theater;** Laser Scanning & Survey

PROJECT HIGHLIGHT US FEDERAL COURTHOUSE - Salt Lake City, UT

Project includes the new federal district courthouse in downtown Salt Lake City. McNeil Engineering provided civil engineering design services for this project including site layout, grading and drainage, utility design and modifications to existing street frontages along 400 South, West Temple and Market Street.

In order to make room for the new courthouse the historic Odd Fellow Building had to be moved. The Odd Fellow Building was picked up off its foundation, turned around and moved across the street and placed on a new foundation. Prior to the move McNeil Engineering's Survey Department completed a 3D laser scan of the exterior of the Odd Fellow Building. The data collected was used to building the new foundation across the street. A scan was performed on the new foundation to verify the diminutions prior to moving the building over and placing on the new foundation.

In December 2015, the new courthouse achieved LEED Gold certification from the U.S. Green Building Council.



PARTIAL PROJECT LIST

- **Calvin Rampton Complex**; Paving Consulting, Laser Scanning & Survey, Landscape Architecture
- **Davis County Senior Center**; Laser Scanning & Survey
- **Beaver County Fair Grounds**; Structural Engineering
- **Salt Lake County Health Center**; Civil Engineering
- **Utah State Hospital Museum**; Roofing Consulting, Structural Engineering
- **Utah State Prison - Dairy Building**; Roofing Consulting, Structural Engineering
- **Utah State Development Center**; Laser Scanning & Survey
- **Utah State Capitol Building**; Laser Scanning & Survey
- **Foley Federal Building & Federal Courthouse**; Landscape Architecture
- **UTA Front Runner South - Salt Lake to Provo**; Civil Engineering, Structural Engineering
- **Jordan River Parkway**; Civil Engineering, Laser Scanning & Survey, Landscape Architecture
- **Salt Lake City Library**; Structural Engineering
- **Pearl Harbor**; Structural Engineering, Laser Scanning & Survey

PARKS & RECREATION

PROJECT HIGHLIGHT Creekside Park - Sandy, UT

Creekside Park is a small neighborhood park located at the corner of Riverside Drive and 9400 South in Sandy City, Utah. In an effort to meet the needs of their community, Sandy City wanted to create a neighborhood park that would not only benefit the surrounding neighborhood but the overall community as a whole. During the initial preliminary design process, the project team generated and presented several design concepts to the residents and city staff for review and comment. The final result was a design using innovative ideas and concepts to accomplish the city and surrounding neighborhood programming requirements.

Specific program elements include a new walking trail, interpretation signs, perimeter fencing, playground, climbing wall, shaded seating areas, a drinking fountain and landscaping all placed within the natural environment. To help fund the project, Sandy City used grant money awarded through the Natural Resources Conservation Service and the project was completed in the Fall of 2007. The design team was intimately involved in the implementation process beginning from the initial pre-bid meeting to the final inspection. The final result was a small intimate neighborhood park that not only met the stringent budget restraints, but continues to be used and enjoyed by the community.



PARTIAL PROJECT LIST

- **George Lane Park Pool;** Laser Scanning & Survey, Civil Engineering
- **Central Park;** Landscape Architecture
- **Ashley Valley Parks Concession Stand;** Structural Engineering, Landscape Architecture, Consulting
- **Draper Park & Recreation Master Plan;** Landscape Architecture
- **Rosewood Skate Park;** Landscape Architecture
- **West Wendover Recreation District Parks Master Plan;** Laser Scanning & Survey, Landscape Architecture
- **Uintah Recreation District Master Plan;** Landscape Architecture
- **Pony Express Regional Park;** Landscape Architecture
- **Little Willow Canyon Pedestrian Bridge;** Structural Engineering
- **Riverdale City Park;** Landscape Architecture
- **Plum Creek Pond Nature Park;** Landscape Architecture
- **Kearns Recreation Center;** Civil Engineering, Consulting
- **Jordan River Parkway Trail;** Laser Scanning & Survey, Civil Engineering, Landscape Architecture
- **Thunder Junction All Abilities Park;** Structural Engineering

PROJECT HIGHLIGHT CAPITOL HILLS LDS WARD CHAPEL - Salt Lake City, UT

McNeil Engineering was approached by the LDS Church to take a close look at one of their church buildings in Salt Lake City, Utah. However, this particular building has been around for nearly 100 years and occupies a very prominent piece of property directly across the street from the Utah State Capitol. This is currently on the Utah, national and LDS Church's historical list.

McNeil Engineering's Roofing Consulting Department was tasked to replace a synthetic tile roofing system that had been installed to replace the original roof. The synthetic tiles failed and had been leaking for several years. McNeil Engineering was asked to design a new roofing system to comply with the original architectural style and to provide quality control during the construction to make sure that the system was installed properly. To help in the design of the new roof McNeil Engineering's Survey team completed a 3D laser scan of the exterior of the building and created a 3D model. This data was used in the design of the new roof.

McNeil Engineering designed a slate tile roofing system to bring the look of the building back to its original look and to give it the longevity that only a slate tile system can give.



PARTIAL PROJECT LIST

- **St Francis of Assisi Catholic Church;** Civil Engineering
- **Korean Presbyterian Church;** Laser Scanning & Survey, Civil Engineering, Landscape Architecture
- **Camp Mia Shalom LDS Girls Camp;** Laser Scanning & Survey
- **Our Saviors Lutheran Church;** Paving Consulting, Laser Scanning & Survey
- **Manti, Utah LDS Temple;** Paving Consulting, Laser Scanning & Survey
- **Fort Collins, Colorado LDS Temple;** Structural Engineering
- **Risen Life Church;** Laser Scanning & Survey
- **Camp Shawnee;** Roofing Consulting, Structural Engineering
- **Welfare Square - Bishop's Storehouse;** Roofing Consulting
- **Pagoda LDS Chapel;** Laser Scanning & Survey, Landscape Architecture
- **St. Joseph the Worker Catholic Church;** Civil Engineering, Laser Scanning & Survey
- **Hundreds of LDS Chapels throughout Utah and Nevada;** All McNeil Engineering Departments

PROJECT HIGHLIGHT Barrister Place Building "Psycho Hotel" - Phoenix, AZ

The historical Barrister Place building in downtown Phoenix has a storied past, opening in 1915 as the Jefferson Hotel. At the time of its opening The Jefferson Hotel stood as the tallest building in the state of Arizona and, later, was used in the beginning of the 1960 horror movie "Psycho."

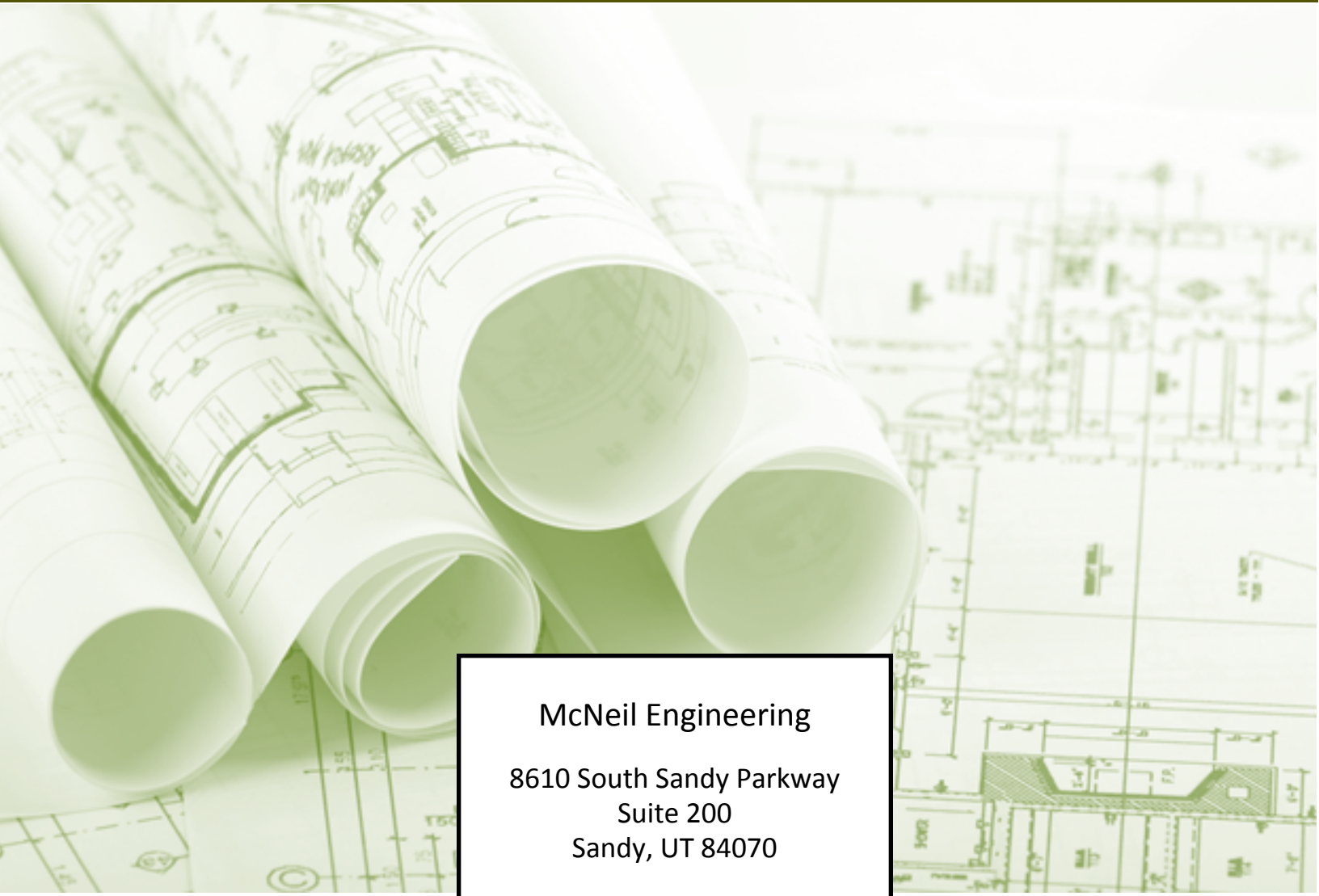
McNeil Engineering used 3D laser scanning technology to scan the exterior of the structure for an engineering partner in Phoenix Arizona, Hubbard Engineering, who was retained by the City of Phoenix Economic Development Agency

The use of 3D laser scanning technology on this project created a highly accurate representation of existing conditions of the building for historical documentation prior to renovation work and future expansion.



PARTIAL PROJECT LIST

- **Capitol Hills LDS Ward Building;** Roofing Consulting, Laser Scanning & Survey
- **Masonic Temple;** Laser Scanning & Survey
- **Bountiful LDS Tabernacle;** Landscape Architecture
- **Utah State Hospital Museum;** Roofing Consulting, Structural Engineering
- **Santaquin City Museum;** Structural Engineering, Roofing Consulting, Laser Scanning & Survey
- **American Fork LDS Tabernacle;** Laser Scanning & Survey, Consulting
- **Casino Star Theater;** Laser Scanning & Survey
- **Brigham City LDS Tabernacle;** Roofing Consulting
- **Enos Wall Mansion;** Civil Engineering, Laser Scanning & Survey
- **The Judge Building;** Laser Scanning & Survey
- **Manti LDS Tabernacle;** Paving Consulting
- **Odd Fellow Building;** Laser Scanning & Survey



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