MICHELS®

PUMPED STORAGE HYDROPOWER

STATEMENT OF QUALIFICATIONS

Delivering critical energy solutions with insight, ingenuity, innovation

As one of North America's largest, most diversified energy and infrastructure contractors, Michels delivers turnkey construction, maintenance, and expansion of energy transition and renewable energy systems, including pumped storage hydropower projects.

We design, build, and maintain all scopes of above- and below-water construction with unwavering commitment to safety, quality, and environmental preservation. As projects become more complex and timelines more compact, we offer alternate delivery models to develop creative, cost-effective solutions.

Collaborative Delivery

We have completed more than 200 alternative delivery projects across the U.S. and Canada over the past 15 years.

- **Design Build Services**
- **Early Contractor Involvement (ECI)**
- **Internal Engineering**

FACILITIES | HEAVY CIVIL | MARINE | PIPELINE | PUMP STATIONS | SPILLWAYS | TRENCHLESS

An overview of the collective strength of the MICHELS® Family of Companies

9,000+ people strong

18,000 pieces of equipment

1959 founded in

50+ locations globally

Top 8%

ENR's Top 400 Contractors List

MICHELS®

SCOPES & PROJECTS

Mass Grading

Lighthouse Data Center Site Preparation

Port Washington, WI | *Active Project*

- Completing all earthwork in preparation for a 675-acre data center campus—the largest of its kind in the world
- Contributing 3.5 million cubic yards of grading, 1.5 million tons of aggregate, 1.2 million cubic yards of topsoil export, & 200,000 cubic yards of concrete slurry
- Building roads, curbs, gutters, sidewalks, & temporary asphalts
- Constructing 2.4 million feet of 6-inch conduit & 110,000 feet of duct banks for telecom and medium-voltage cable & building 45,000 feet of storm sewer, 15,400 feet of sanitary sewer, & 440 structures for wet utilities
- Installing 2,700 auger-cast piles (30-inch diameter, 35 to 50 feet deep)

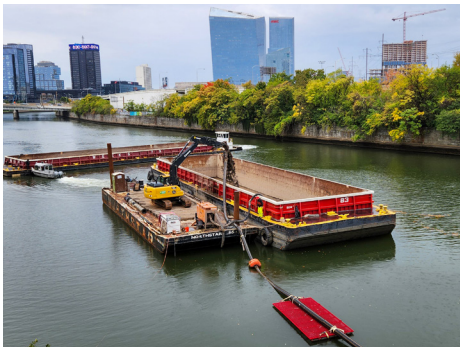
Roads

Mountain Tunnel Improvements

Groveland, CA | *Active Project*

- Rehabilitating nearly 20 miles of a raw water tunnel & underground flow control facility
- Improving water flow control, water quality, & maintenance access
- Drilling & blasting, repairing shotcrete & concrete liners, permeation & contract grouting, concrete invert paving
- Adding new tunnel adits & access portals, new siphon extension, & deep shafts
- Making road improvements & mitigating rockfall & improving slope stabilization along access roads

Reservoir



Schuylkill River Dredging

Philadelphia, PA | *2022*

- Utilized hydraulic dredging techniques to rake & dredge the Schuylkill River
- Removed 20,000 cubic yards of materials, including coal deposits, fallen trees & branches, old dock pilings, oil & chemical barrels, & more than 4,000 tires, at rates exceeding 750 cubic yards per day
- Transported dredged materials in a 10-inch HDPE pipe to a booster pump that propelled the material through the pipe to a barge with a tracked excavator
- Employed more than 18,000 feet of HDPE pipe, four 900-cubic-yard scows, four floating pump stations, three spud barges, two tugboats, & two highly customized hydraulic dredges

Dam

Goose Pond Dam Improvements

Canaan, NH | *2024–2025*

- Delivered full rehabilitation of a failing, high-hazard dam constructed in 1918
- Addressed severe seepage & structural issues, including deteriorated outlet works & spillway & obsolete, nonfunctional wooden gates
- Rebuilt/flattened downstream slope for stability & installed relief wells & underdrain systems
- Replaced the bridge for vehicle access over the spillway & implemented an innovative pressure-relief & toe-draining system
- Honored with a Regional Award of Merit by Engineering News-Record

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SCOPES & PROJECTS

Spillways

Tule River/Success Lake Spillway Enlargement

Porterville, CA | 2022–2025

- Constructed a 10-foot-high, 350-foot-long curved reinforced concrete ogee weir across Success Lake's emergency spillway dam
- Built side walls, trench drains at the main dam left abutments, & downstream apron
- Leveraged on-site batch plan to supply concrete, including about 20,000 cub yards of mass structural concrete placement, 900 rock anchors for concrete anchoring & rock reinforcements, & 80,000 tons of riprap & bedding material placement
- Excavated approximately 70,000 cubic yards of drill & blast material

Secant Pile Access Shaft

Newton Pump Station Reservoir Tunneling & Outlets

Surrey, BC | 2022–2024

- Self-completed full scope of the project, which included the construction of a 150-meter-long tunnel to connect two outlet pipes from a new pump station to the existing reservoir cells
- Excavated & jacked the 84-inch-diameter casing pipe
- Carried in place & installed the two 36-inch-diameter pipes
- Prepared, lined, & coated the internal & external surfaces of the steel pipes

Tunneling

San Francisco Bay Tunnel

San Francisco, CA | 2010–2016

- Served as managing partner of a joint venture to construct the first tunnel under San Francisco Bay, reaching up to 110 feet below the water & navigating environmentally sensitive areas that included active earthquake zones
- Excavated the 5-mile-long tunnel with launch and retrieval shafts only (no intermediate shafts), using a 15-foot-diameter earth pressure balance tunnel boring machine (EPBTBM)
- Installed a 108-inch-interior-diameter steel carrier pipe in the concrete-lined tunnel that included 1,000-foot-radius curves and required butt welding, mortar lining, & cellular-grout backfilling
- Supported the 58-foot-diameter, 141-foot-deep launch shaft with a circular concrete diaphragm wall
- Stabilized the retrieval shaft excavation using ground-freezing methods with the addition of steel rings & timber lagging with an interior diameter of 22 feet & a depth of 98 feet
- Honored with National Project of the Year award by the American Public Works Association

MICHELS®

SCOPES & PROJECTS

Horizontal Directional Drilling

Snowy 2.0 - Marica Road West HDD

New South Wales, Australia | *2023*

- Completed a 2,248-meter-long HDD for Australia's largest pumped hydropower battery megaproject
- Accomplished a never-before-attempted HDD elevation change of 600 meters from low to high side
- Utilized two Michels-designed/fabricated rigs with 880,000 pounds of push/pull force each
- Navigated jobsites in an extremely remote location with strict environmental regulations
- Honored with a No-Dig Award for New Installations by the International Society of Trenchless Technology

Hard Rock Tunnel Boring

Eagle Mountain Tunnel

Squamish, BC | *2024*

- Used two tunnel boring machines to bore approximately 9 kilometers between Squamish & the Woodfibre LNG industrial site
- Completed 5 kilometers of the tunnel using a 4.5-meter-diameter hard rock tunnel boring machine
- Performed tunnel runs at depths of 25–450 meters to protect sensitive ecosystems in the Skwelwil'em Estuary

Lake Taps

Lake Ouachita Tap & Intake

Hot Springs, AR | *2023*

- Installed 2,569 feet of 54-inch steel pipeline beneath Blakely Mountain using the Direct Pipe® method
- Used a 60-inch microtunnel boring machine & pipe thruster to complete the bore
- Installed a 54-inch single-pass welded steel pipe to gravity feed up to 23 million gallons of raw water from an intake structure to a new treatment plant
- Accomplished via the design-build model
- Honored with a No-Dig Award for New Installations (Runner Up) by the International Society of Trenchless Technology

Water Intake

Missouri River Intake

McClean County, ND | *2021–2023*

- Used microtunneling to deliver 1,600 feet of a 72-inch-diamater tunnel to connect a wet well & shaft on a riverbank to a screen structure foundation in the river
- Constructed a 33-foot-circumference sheetpile cofferdam by driving 90-foot-long steel sheets in the Missouri River & a secant pile shaft on land
- Installed a concrete liner in an existing 42-foot-diameter, 65-foot-deep shaft
- Provided ADCI-certified dive & marine support throughout the project, including winter

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SCOPES & PROJECTS

Pump Station

Colorado River Aqueduct Pumping Plants

California | 2019–2021

- Demolished & replaced existing platforms, pumps, & columns at five pump stations for a 242-mile-long water conveyance system
- Installed concrete, structural support, platforms, grating, handrails, sump covers, pumps, motors, valves, pipes, lighting, & ventilation
- Removed mud & debris from sumps & performed electrical upgrades
- Furnished new platforms, pump columns, prefabricated pump piping, & electrical
- Removed hazardous materials including asbestos, coal tar coating, & lead during demolition

Marine

Ashland Water Utility Intake

Ashland, WI | 2025

- Upgraded a municipal raw-water intake system, replacing 4,500 feet of 24-inch-diameter ductile iron pipe & installing a 19-foot-by-19-foot-by-8-foot wooden crib
- Installed the pipe in 60-foot sections in depths up to 45 feet, with divers verifying pressure tests on each segment
- Performed the shoreline tie-in with a coffer cell system, while the offshore system segments were trenched
- Accomplished all work according to AWWA, USACE, OSHA, USCG, & ADCI aquatic environmental standards

Substation

Carlson Creek Switchyard

Monon, IN | 2025

- Built a new 345-kV switchyard to serve as an interconnection between solar generation & a battery energy storage system (BESS)
- Provided all civil construction, foundations, & major equipment
- Utilized a variety of digital technologies, such as advanced sensors, communication systems, & data analytics to enable real-time monitoring, control, & optimization of switchyard operations
- Honored with a Regional Award of Merit by Engineering News-Record

Transmission & Distribution

Smart Path Connect

New York | 2025

- Rebuilt 110 miles & upgraded 55 miles of existing 230-kV parallel transmission circuits
- Installed 662 new steel monopoles
- Self-performed all foundations drilling, including 190 concrete shafts, 464 direct-embeds, & eight micropiles
- Modified seven substations & built three new 345-kV substations

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WE DO THAT ... & MORE