

INTEGRATED ELECTRICAL UTILITY AND CIVIL ENGINEERING

A decorative graphic consisting of three adjacent squares: a dark blue square on the left, a light blue square in the middle, and a yellow square on the right.

Lauren's integrated approach is redefining what clients can expect from their engineering partner.

At Lauren, we understand that successful utility infrastructure projects demand both technical excellence and real-world experience across disciplines. Our team blends industry-leading expertise in electrical utility engineering and civil/structural design, delivering powerful integrated solutions that address the complete lifecycle of infrastructure projects from concept through construction.

By combining our proven track record in transmission, distribution, and substations with our civil/structural capabilities in foundation design, earthworks, and structural assessments, we provide our clients with integrated, efficient, and reliable project delivery.

Whether it's overhead or underground systems, substation design, or site civil development, Lauren provides the right solution on time and on budget, every time.



ELECTRICAL UTILITY ENGINEERING SERVICES

Lauren's utility engineering group delivers excellence from project conceptualization to execution, specializing in transmission, distribution, and substations. Our expertise ensures reliable, cost-effective solutions tailored to utility challenges.

OVERHEAD DISTRIBUTION SOLUTIONS

We provide innovative overhead line solutions for safety, reliability, and efficiency.

Expert line design: Using PLS-CADD, we create precise, customized designs for optimal performance and longevity.

New line installations: Full-service solutions from design to construction.

Upgrades & replacements: Modernizing infrastructure to enhance reliability and reduce downtime.

Customer extensions & relocations: Tailored solutions for new connections and line relocations.

Construction support: Collaborating with trusted partners for timely, high-quality execution.

UNDERGROUND DISTRIBUTION SOLUTIONS

Our underground systems meet urban and industrial demands, prioritizing safety and grid stability.

New installations: Turnkey solutions minimizing environmental impact and supporting future energy needs.

System upgrades: Replacing aging networks to boost capacity with minimal disruption.

Feeder extensions: Enhancing reliability and capacity for load growth.

Primary service connections: Customized solutions for residential, commercial, and industrial customers.

HIGH-VOLTAGE TRANSMISSION LINE SERVICES

We specialize in 63kV–230kV transmission lines, ensuring reliable power delivery and safety.

Custom design & construction: Managing all phases with a focus on engineering excellence.

PLS-CADD analysis: Precise design and structural optimization.

Structural & foundation design: Tailored solutions for steel/wood structures and site conditions.

Lightning & grounding systems: Ensuring safety and surge protection.

Electromagnetic interference: Assessing and mitigating impacts for safe integration.

SUBSTATION ENGINEERING & DESIGN

We deliver comprehensive substation solutions focused on safety, reliability, and operational excellence.

New Substation Construction: Complete project delivery from site assessment and permitting to energization, tailored for utility, industrial, and renewable applications.

Upgrades & Expansions: Modernizing existing substations with the latest technology to boost capacity, enhance reliability, and minimize outages.

Equipment Replacement: Seamless replacement and integration of transformers, breakers, switchgear, and other key components to extend asset life and meet evolving system requirements.



Protection & Control Integration: Engineering and installation of relay protection, SCADA systems, and automation for optimal system performance.

Specialty Solutions: Custom designs for challenging sites, including compact urban installations and extreme environments.

ELECTRICAL UTILITY ENGINEERING SUPPORTING SERVICES

- Field verification of existing system
- Development of construction package
- Project management
- Development of custom or non-standard structures
- Standard and design guideline development
- Pole line modeling expertise
- Background in successful Indigenous relations
- Front-end engineering design
- Power systems studies
- NERC compliance programs
- SCADA systems
- Protection settings studies
- Construction standards development
- Creation of bill of materials
- Procurement of specialized equipment





CIVIL AND STRUCTURAL ENGINEERING SERVICES

Lauren's skilled, multidisciplinary engineering team delivers innovative, cost-effective solutions in geotechnical, civil, structural, and drafting services for O&G, industrial, and transitional energy projects. Our comprehensive design offerings include civil/structural design, site grading, drainage, erosion control, stormwater management, and bridge/pavement design. Trusted by construction partners for clear communication and responsive support, Lauren ensures project success with timely solutions and unwavering accountability.

COMPREHENSIVE SERVICES

Structural design: Steel structures, foundations, and pipe racks for diverse applications.

Geotechnical expertise: Reviews and support for stable, reliable site development.

Civil design: Site grading, drainage, erosion control, stormwater management, and bridge/pavement design.

Advanced tools: AutoCAD Civil 3D, Navisworks, LPILE, GROUP, PYWALL, RISA, STAAD Pro, and Dyan6 for precise design and analysis.

Architectural integration: Cohesive building and structural solutions.

CIVIL AND STRUCTURAL ENGINEERING SUPPORTING SERVICES

- Structural assessments and analysis
- Foundation and substation structure design
- Earthworks, grading, and drainage planning
- Utility trenching and duct bank coordination
- Civil site layout and access planning
- Construction package development
- Project permitting and support services
- Proven CSA program experience





CIVIL, STRUCTURAL AND ARCHITECTURAL

Lauren has extensive experience in the execution of civil, structural and architectural projects, offering engineering and construction support services for a broad range of electrical and civil initiatives. Highlights include:

- Development of engineering work packages for overhead and underground distribution
- Substation design enhancements and civil site improvements
- Structural and foundation assessments for high-voltage infrastructure
- Roadway and drainage upgrades to support utility access and performance
- Support for environmental and regulatory compliance across utility and civil scopes

Our CSA work consistently meets client expectations for quality, timeliness, and cost-effectiveness with a commitment to safety and stakeholder collaboration at every step.

COMPREHENSIVE SERVICES ACROSS DISCIPLINES

- Civil, structural & electrical engineering
- SCADA & protection systems
- Substation & switching station design
- Utility coordination & relocation
- Roadway design & drainage planning
- Earthworks & grading
- Permitting & environmental support
- Indigenous and stakeholder engagement
- Procurement & construction support
- Project & program management

LET'S BUILD SOMETHING GREAT TOGETHER

Lauren is a trusted partner in delivering multi-disciplinary engineering and project delivery solutions that power communities, industries, and economies. With a collaborative approach and decades of specialized expertise, we bring insight, agility, and execution excellence to every project.

Calgary | Vancouver | Kelowna | Houston

laurenservices.com

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