

// Substation Services

From initial concept through final deliverables, K&A provides comprehensive engineering support that spans design, detailed drafting, analytical calculations, and professional engineer oversight, including Engineer of Record services. Backed by a rigorous internal quality control framework, outputs are consistently accurate & dependable, minimizing field risks and ensuring smooth project execution across every phase.

Structural Engineering:

- Drawing and Detailing
- Review and Evaluation
- Engineering Design

Protection & Control Engineering:

- Protective Relay Systems
- Control Systems
- Communication Systems
- Auxiliary and Ancillary Systems

Automation & Communications:

- Real-time operation of transmission lines & power plants.
- Turnkey telecom network delivery
- Telecom installation for automated distribution
- SCADA-enabled live monitoring and control
- Deployed across substations, plants, dams, & facilities
- Microwave, fiber, wireless, digital upgrades

75+

projects delivered

2.4 kV to 765 kV

full voltage range

20+

Power Delivery team averaging industry experience

Services Offered:

Civil / Structural

- Structural Calculations
- Steel Assembly Diagrams
- Steel Fabrication Drawings
- Foundation Calculations
- Foundation Plan and Detail Drawings
- Site Grading

Substation Engineering

- Feasibility Studies
- Cost estimates
- Conceptual & Detailed Design
- Technical Specifications
- Defining upgrades and refurbishments to existing substation compensators

Physical Design :

- General Arrangement
- Bill of Materials
- Erection Diagram
- Grounding
- Conduit
- Lighting & Protection

Electrical/ Relay/ Control:

- One-Line Protection Design
- AC and DC Schematics
- Relay Panel Design
- Wiring & Logic Diagrams
- ASPEN – Short Circuit Coordination
- Relay Settings
- Load Flow
- Harmonics Studies

