# Concept Engineering Inc.

#### Electrical and Mechanical Consulting



At Concept Engineering we strive to make your concept a reality, using cost effective and efficient design strategies. We pride ourselves on close client interaction and professionalism. With a combined 100+ years' experience we offer Building Systems, Horizontal Electrical Utilities and Sustainable Design.

# **Building Systems Engineering**

Concept Engineering has experience in all aspects of building design ranging from small tenant fit-ups and design builds up to large camp and wellness facilities.

### **Electrical Systems:**

- Energy efficient, sustainable, flexible lighting systems and control design.
- Power systems loading and distribution design.
- Life safety systems (Power, Lighting and Fire Alarm Systems).
- Telecommunications, Audio/Visual and Security systems Design.
- Emergency generator design and specifications.
- AutoCAD and REVIT and AGi design implementation.
- Design build, verifications and building evaluations.
- LEED<sup>®</sup> Accredited Professional.
- Solar PV designs and implementation



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### **Mechanical Systems:**

- Mechanical Site Services (water, sanitary and storm).
- Building plumbing and heating distribution systems.
- Building ventilation ductwork distribution.
- Building fire protection sprinkler head layouts.
- o Mechanical control systems
- Heat gain/loss calculations
- AutoCAD and REVIT design implementation.
- Energy Modelling
- Firefighting Water Supply Calculations
- o Design build, and Building Evaluations
- Boiler/Mechanical systems upgrades and replacements



# **Horizontal Electrical Utilities**

With a broad range of experience in utilities engineering, whether it be overhead or underground distribution (power and telecommunication), Concept Engineering can provide the details and information required:

- Residential Electrical Distribution (URD)
- Commercial site power and telecommunications development and coordination with local Utilities (transformer, pedestal and roadway lighting coordination)
- Street lighting design (RTAC and IESNA certifications) to Transportation of Canada standards (TAC).
- Traffic control distribution and certification
- Utility easement applications and coordination's
- Street lighting assessments
- AutoCAD and AGi design implementation.



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## Sustainability

We are constantly reminded that we must not sacrifice the environment for the sake of progress and we as professionals must seek balance in all that we create. Through sustainable design, Concept Engineering strives to reduce energy consumption and environmental impact, meanwhile increasing comfort, functionality and overall productivity we achieve these values by:

- Pursuing continuing education and related seminars/conferences
- Collaboration with experienced professionals to share ideas and solutions
- Researching current and new technologies
- Practicing these ideals in everyday settings



Sustainability is the ability to fulfill the needs of the present without compromising the needs of the future

#### **Professional Affiliations APEGA** Association of Professional Engineers The Association of Professional And Geoscientists of Alberta **PEGA** Engineers and Geoscientists of Alberta Professional Engineers **PEGBC** Professional Engineers and Geoscientists and Geoscientists of BC of British Columbia APEGS Association of Professional Engineers and Association of Professional Engineers Geoscientists of Association & Geoscientists of Saskatchewan **Professional Engineers** PEO Professional Engineers of Ontario Ontario **IESNA** Illuminating Engineering Society Canada Green Building Council CaGBC Canadian Green Building Council ASHRAE American Society of Heating, Refrigerating And Air Conditioning Engineers **NAPEG** Northwest Territories and Nunavut Association Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists



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of Professional Engineers and Geoscientists

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# **Notable Projects**

#### Electrical and Mechanical Consulting

### Commercial/Retail

Light Industrial, Vehicle

Servicing

Fix Auto Edmonton, GoMazda, Craig's Welding Paint Shop, Full House Renovations Paint Booth Upgrade, Integra Tire, E

Construction

**The Kingsway Legion** Completed in 2013, the Kingsway Legion was a brand new

facility to replace the expropriated facility located on Kingsway Ave, Edmonton. The new facility has 2 large Banquet Halls, Administration Offices and a Large Canteen games room for

Veterans.

Jagare Ridge Development Shops of Jagare Ridge is a comprehensively planned controlled

mixed use retail and office centre. The total project

(approximately 12 acres of land) is currently planned to include

six retail buildings and one mixed-use building (totaling

approximately 95,000ft<sup>2</sup>).

CMS Famous Toys CMS Famous Toys is a Canadian Leader in the distribution and

marketing of Children's Toys and General Merchandise to

Grocery and Drug Stores. The new facility will have

approximately 70,000ft<sup>2</sup> of warehouse space and 8,000 sf of office/admin area. High end lighting technologies were utilized through-out the facility to minimize energy consumption and

maintenance requirements.

**F12 Networks** F12 Networks is an Alberta based IT company with offices in

Calgary, Red Deer and now Edmonton. The Edmonton facility consists of a 20,000ft<sup>2</sup> office space with complete IT solutions center and a 3000ft<sup>2</sup> data center for complete cloud based

solutions.

Urban Outfitters, Anthropologie and Free People are all brands

under the Urban Outfitter Inc branding. Across Canada,

Concept Engineering is involved in the design of these high end

clothing stores.

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# Residential/Assisted Living

**Peace Hills Lodge** A 74 Unit assisted living lodge located in Wetaskiwin, Alberta.

Completed in 2009 for the Bethany Group, this facility has full dining room, games room, central courtyard and a variation of

suites. The building is on 100% emergency power.

**Dr. Turner Lodge** A 90 unit senior's lodge located in Fort Saskatchewan, Alberta.

This LEED silver facility was a cooperative project between Strathcona County and the City of Fort Saskatchewan.

Funded in part by the Alberta Government to meet the ever

growing needs for our seniors.

Silverbirch Court This 69 Unit affordable housing apartment complex located in

Sherwood Park, AB. A first for Sherwood Park, this project will

provide housing for AISH and low income families for the

surrounding area.

Multi-Unit Residential Concept Engineering has been involved in over 15 multi –unit

residential projects. Developments ranging from just 15 units up to developments with over 150 units. With clients such as Brookfield Homes, Cove Properties and Reid Developments.

# **Community/Healthcare**

Bruderheim Fire Hall A uniquely funded fire hall which saw contributions from

Strathcona County and Lamont to replace the existing 50 year old volunteer fire station with a new \$2mil Fire Hall. The new fire hall includes space for RCMP, training and town meeting

rooms and includes 3 drive thru bays.

Strathcona Fire Halls Fire Hall No 5: Received a major renovation and addition.

Adding additional truck bays, dorm rooms and fitness facility.

Fire Hall No 1: Has received multiple renovations and additions

to meet the expanding requirements and technological

upgrades

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Various Dental Clinics Concept Engineering has completed over 20 full dental interior

fit up designs ranging from Dental chains; Focus on Smiles, TLC Dental and standalone Offices for the Saddle Lake

community, the City of Fort Saskatchewan, and throughout the

Edmonton region.

Edmonton Institute For

Women

Housing upgrade and remediation for the EIFW facility in

Edmonton.

Fort Saskatchewan Correctional Centre

Temporary swing facility development for continual security

system upgrades

### **Education and the Arts**

Faculty St. John The faculty St. John expanded classrooms and Administrative

offices into the newly renovated La Cite Francophone

Community Centre.

**Neon Sign Museum** A museum to celebrating Edmonton's neon past. The Neon

sign museum is an outdoor showcase designed to display

refurbished Neon signs of Edmonton's History.

**Industrial** 

**Devon Pike Lodge** A 2000 man LEED silver core facility for Devon Oilfield. This

high-end facility has amenities for 2000 workers, ranging from

a full cafeteria, fitness, gymnasium and theatre.

**Devon Jackfish Lodge** A 1000 man facility for Devon Oilfield. Concept Engineering

was hired to complete the communications, security and

emergency life safety systems design of this facility.

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