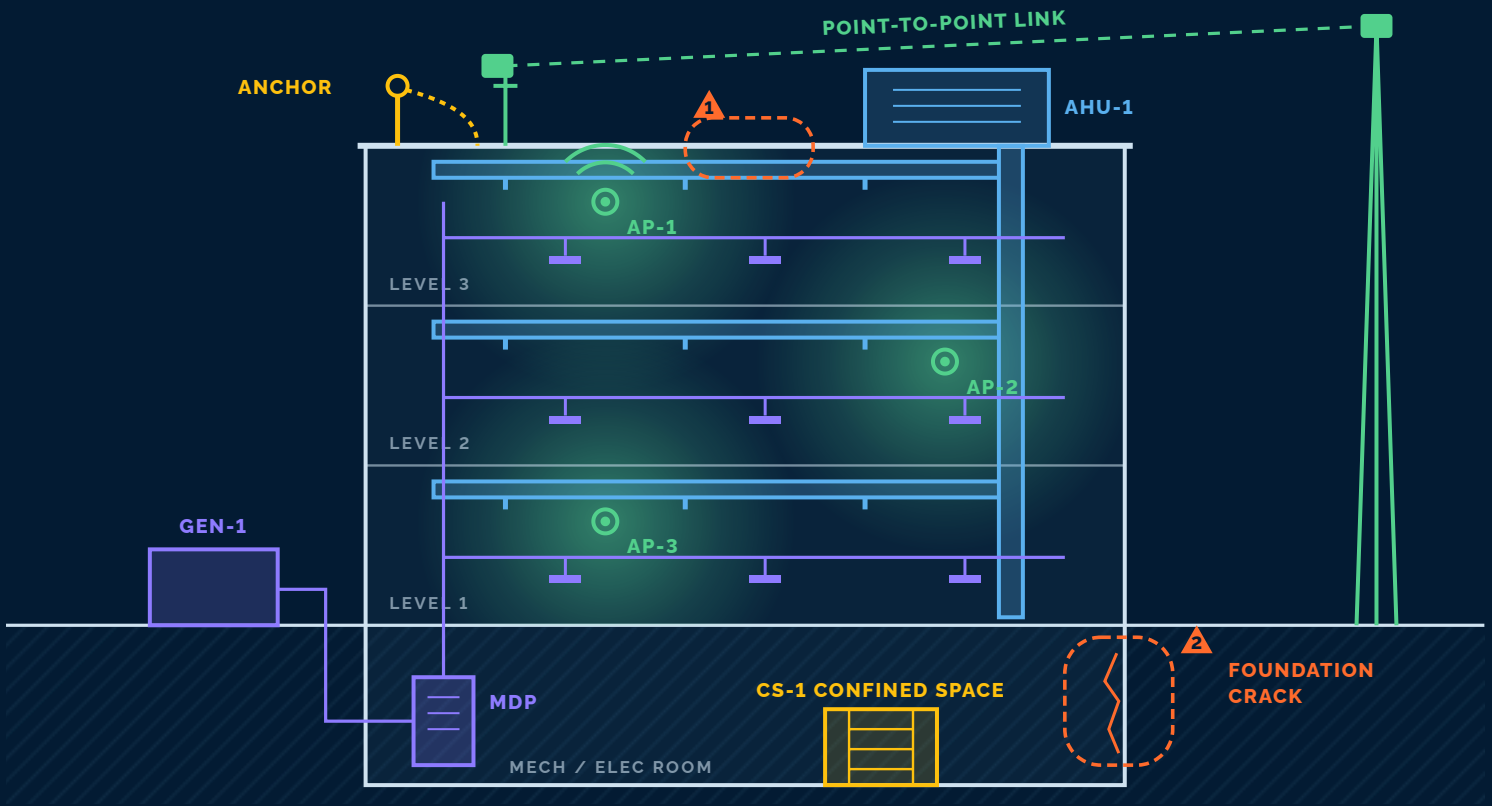
EhZee Engineering

CORPORATE OVERVIEW
EDMONTON · CALGARY · VANCOUVER · TORONTO

Building systems, engineered from eh to Zee.

We design, test and inspect the systems that make a building work: **heating and ventilation, electrical power and lighting, WiFi and low-voltage networks, and the inspections and safety programs around them.** One team takes the job from the first site walk to the final test report.



M-SYS
Building systems

E-PWR
Electrical engineering

T-COMM
Wireless & comms

G-INSP
Inspections

G-SAFE
Safety programs

ehZee Engineering Corporation · Head office: Edmonton, Alberta

ehzee.ca · 1.833.888.0091 · contact@ehzee.ca

ABOUT EHZEE

One engineering team for the systems that keep a building safe and working

ehZee Engineering inspects, designs and builds the systems inside a building: mechanical and electrical equipment, life safety systems, WiFi and communications networks, and the safety programs that protect the people who work on them.

Most buildings need more than one trade. Because we work across all of them, the ductwork, the access points, the electrical circuits and the inspection findings land on **the same plan and the same schedule**, with one team you deal with directly.

Why the name?
ehZee is a Canadian firm with a service list that runs from A to Z, handled by one team from the first site walk to the final report.

> *Solving problems means asking why a client is looking for a solution, not just how.*
>
> HAZIM GABER, CEO

Before we recommend equipment or write a report, we find out who uses the space, what they do there and what is going wrong today. Those answers set the targets the work is measured against.

5
engineering practices under one roof

53
services, from home inspections to data centres

258
plain-language guides written by our team

4
offices in Alberta, British Columbia and Ontario

2018
Incorporated, with head office in downtown Edmonton

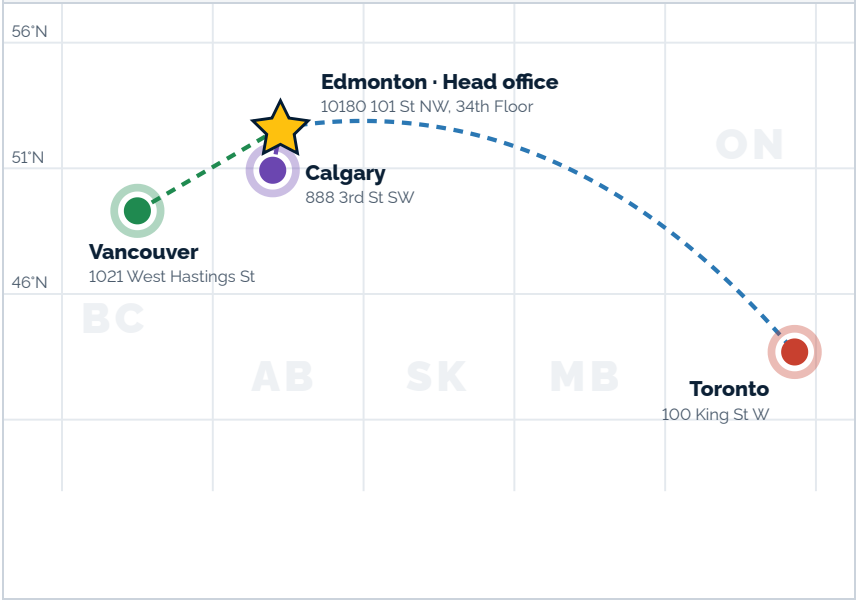
35+ yrs
Mechanical systems experience leading our engineering

2,000+
Students taught enterprise WiFi design by our CEO

PMP · PgMP
Certified project and program management

Where we work

FOUR OFFICES, ONE TEAM



Who we work with

Owners, managers and builders who need the systems in a building designed, checked or put right.

- Commercial buildings
- Institutional & healthcare
- Offices & meeting spaces
- Homebuyers & sellers
- Industrial employers
- Condos & multi-unit
- Data centres & server rooms
- Warehouses & yards
- Landlords & tenants
- Contractors & builders
- Fleets & parkades

WHAT WE DO

53 services, five practices, one team

We inspect, design and build across every system in a building. The map below is our full service list, grouped the way our drawings are: each practice has its own layer and its own colour.



Building systems M-SYS

Mechanical, electrical and life safety equipment a building cannot run without, inspected against code and the maintenance schedule.

- Mechanical system inspections
- Electrical system inspections
- Air & water filtration inspections
- Compressed air system inspections
- Diesel generator inspections
- Elevator & escalator inspections
- Crane inspections
- Ladder & scaffolding inspections
- Fire inspections, verification & monitoring
- Fire investigations
- AED inspections

Wireless & communications T-COMM

Enterprise WiFi, cabling, voice, AV and the data centre behind them.

- WiFi surveys
- WiFi design & build
- Point-to-point wireless
- Structured cabling
- Data centre design & build
- VoIP design & build
- AV systems
- Crestron control systems
- Digital signage

Maintenance & inspections G-INSP

Independent inspections of a building's structure and condition, with a written record of what to fix first.

- Commercial building inspections
- Home inspections
- Occupancy inspections
- Roof inspections
- Concrete inspections & X-ray
- Welding inspections

Electrical engineering E-PWR

Power, lighting, generators and UPS, fire alarm and smoke detection, security, networks, DAS, building automation and instrumentation, designed as one coordinated system.

POWER & STUDIES

- Electrical design for buildings
- Power distribution design
- Lighting design & controls
- Emergency & standby power
- UPS system design
- Data centre electrical design
- Service upgrades & load calculations
- EV charging design
- Solar PV system design
- Short-circuit & coordination studies
- Arc flash studies & labelling

LIFE SAFETY & COMFORT

- Fire alarm system design
- VESDA & OSID smoke detection
- Sound masking systems

SECURITY

- Access control systems
- Intrusion & security systems
- Video surveillance design
- Perimeter intrusion detection
- Duress & panic alarms

NETWORKS & CONTROLS

- Distributed antenna systems (DAS)
- Network design for buildings
- Building automation (BAS)
- Instrumentation & controls

Safety programs G-SAFE

Written programs, reviews and training for the highest-risk work on a site.

- Safety program development & review
- Confined space programs
- H2S Alive training
- Lift safety & fall arrest

HOW WE WORK

We start by asking why

Every job, from a single WiFi survey to a full electrical design, follows the same four steps. The answers we collect in the first step become the targets we test against in the last one.

1 Ask why

We talk to the people who use the space: **how many, doing what, with which equipment**, and what is going wrong today.

YOU GET: DESIGN TARGETS

2 Survey the site

We walk the building and measure: **ceiling types, cable paths, plant rooms, airflow and radio interference.**

YOU GET: MEASURED SITE CONDITIONS

3 Design

Drawings, equipment selections and **a budget you can approve**, coordinated across every trade on the job.

YOU GET: DRAWINGS AND BUDGET

4 Build and verify

We build or oversee the installation, then **test it against the design.**

YOU GET: BALANCE REPORT, COVERAGE MAP OR INSPECTION RECORD

The targets set on day one are the ones we test at handover

CLOSED LOOP

THE QUESTIONS

- Who uses the space?
- Doing what?
- With which equipment?
- What goes wrong today?

Design targets

- −67 dBm signal for voice and video
- Airflow in L/s at every diffuser
- Light levels and load in every room
- Findings ranked by what to fix first
- Procedures crews can follow

Design & build
every trade, one plan

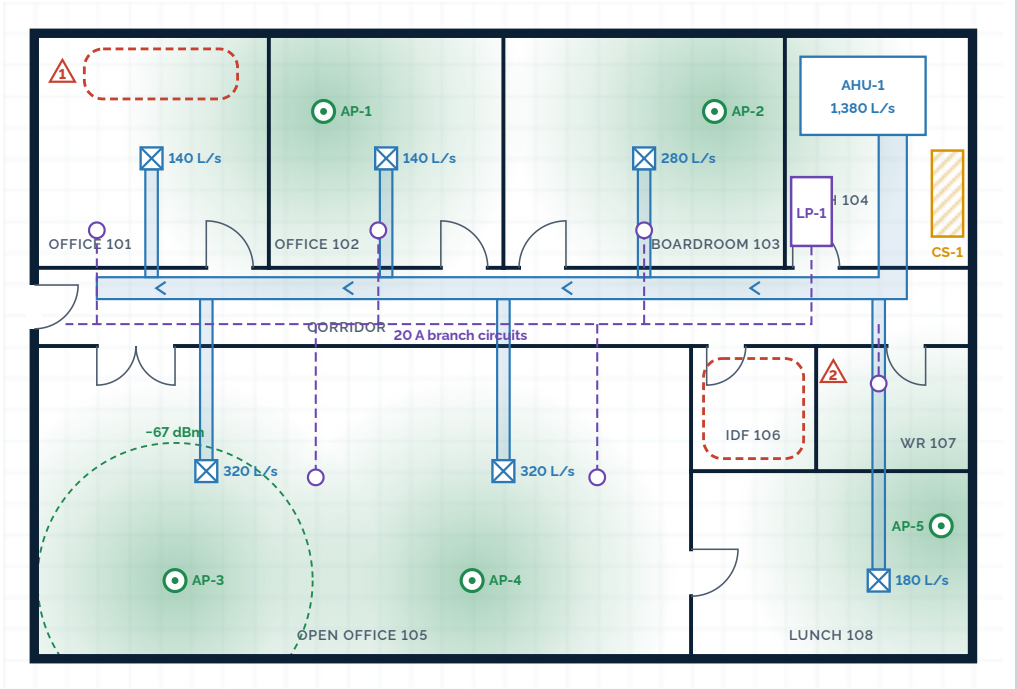
Test & hand over

- ✓ Balance report
- ✓ Coverage heat map
- ✓ Inspection record
- ✓ Test report
- ✓ As-built drawings

measured against the same targets

One plan, every trade

SAMPLE PLAN · LEVEL 1



Mechanical
AHU-1 feeds six supply diffusers. Airflow at each outlet is the number a balancing report checks.

Wireless
Five access points placed from a site survey. The dashed ring marks −67 dBm.

Electrical
Panel LP-1 feeds the branch circuits. Every run is sized for its load and voltage drop.

Inspection
Redlines flag findings. Δ1 ceiling stain under a roof drain. Δ2 unsealed cable penetration.

Safety
CS-1 is a sump pit: a confined space with its own entry procedure.

M-SYS PRACTICE 1 OF 5

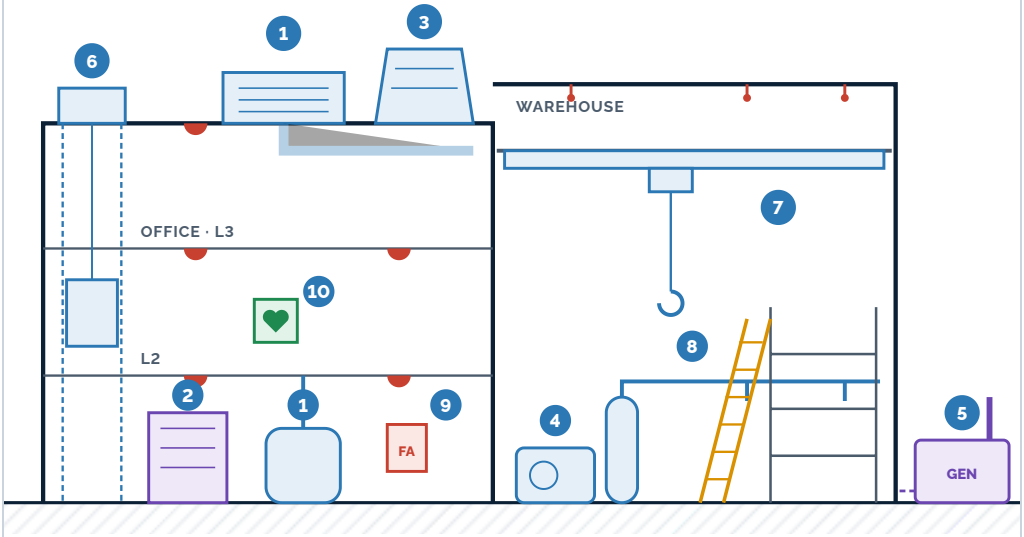
Building systems: mechanical, electrical & life safety

01

The equipment a building cannot run without, inspected against code and the maintenance schedule, with a clear report on its condition, the risks and what to fix first.

What we inspect in a working building

SECTION A–A



1. **Mechanical:** heating, cooling, ventilation, plumbing
2. **Electrical:** service, switchgear, panels, grounding
3. **Air & water filtration:** filters, cooling towers, backflow
4. **Compressed air:** compressors, receivers, leaks
5. **Diesel generators:** fuel, transfer switches, load
6. **Elevators & escalators**
7. **Cranes:** overhead cranes, hoists, rigging
8. **Ladders & scaffolding**
9. **Fire protection:** alarms, verification, monitoring
10. **AEDs:** pads, batteries, cabinets, records
11. **Fire investigations:** what was damaged and how to restore it

From inspection to action

EVERY REPORT ENDS IN A RANKED LIST

Inspect walk, test, measure → **Record** photos, readings → **Rank** risk and cost → **Report** plain language → **Plan** repairs, budget

Fewer surprises: repairs move from emergency call-outs into the maintenance plan and the budget. We also help organize the frequent and periodic inspections that codes and insurers expect.

RANKED FINDINGS

- A · Safety risk: fix now
- B · Fix this year
- C · Plan and budget
- D · Monitor

Services

Mechanical system inspections
Heating, cooling, ventilation and plumbing, with priorities for repair.

Electrical system inspections
Service equipment, switchgear, panels, wiring, grounding and emergency power.

Air & water filtration
HVAC filtration, cooling towers, water treatment and backflow devices.

Compressed air systems
Compressors, receivers, dryers and piping: leaks, waste and hazards.

Diesel generators
Generators, fuel and transfer switches, so backup power starts and carries the load.

Elevators & escalators
Condition assessments to prepare for mandated inspections and plan upgrades.

Cranes
Overhead cranes, hoists and rigging, plus help with frequent and periodic inspections.

Ladders & scaffolding
Portable and fixed ladders and scaffolds, and the routines that keep them safe.

Fire inspections & monitoring
Fire protection inspections and coordination of verification, monitoring and annual tests.

Fire investigations
Engineering assessments of the systems involved and what it takes to restore them.

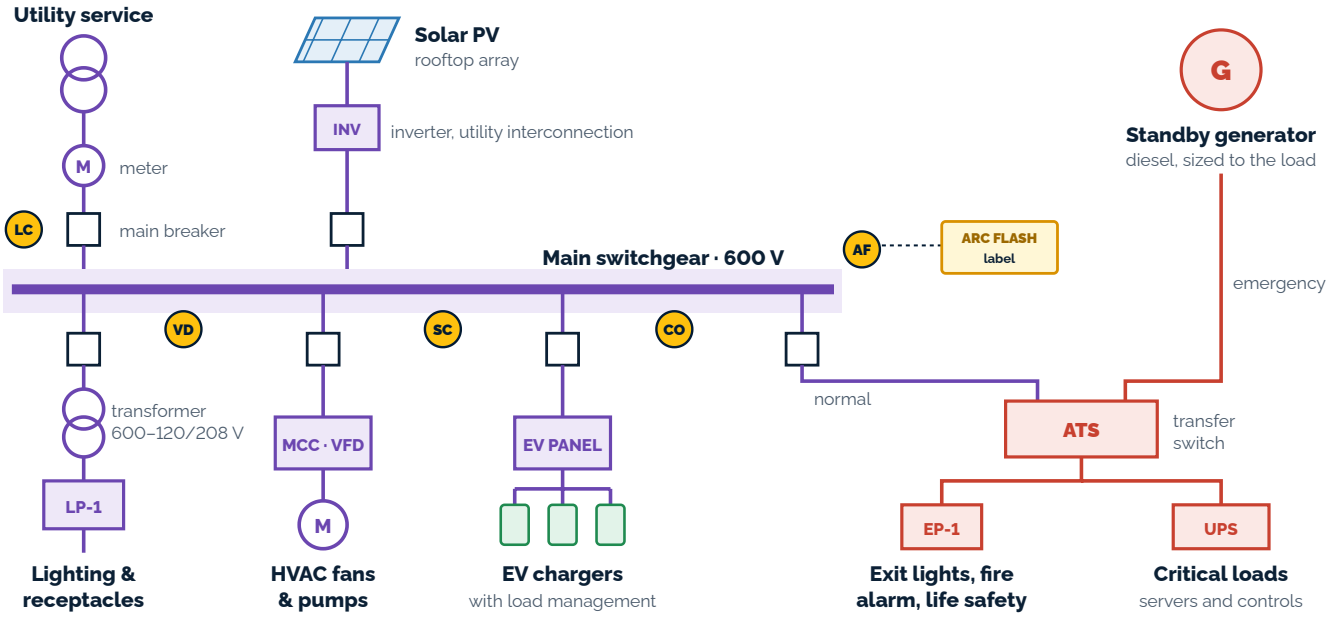
AED inspections
Pads, batteries, cabinets and records, so every AED is ready when needed.

02

Electrical engineering: power from the utility to the outlet

We turn what a building needs into drawings a licensed contractor can price, permit and build, then stay involved through construction so the finished system matches the design.

One building, one coordinated power system — SIMPLIFIED SINGLE-LINE DIAGRAM



Studies that back the design

LC Load calcs — Can the service take the new equipment?

VD Voltage drop — Every run sized for its load and length.

SC Short-circuit — Gear can interrupt the fault current.

CO Coordination — The breaker nearest a fault trips first.

AF Arc flash — Incident energy, under CSA Z462.

Labels — On the gear, with ways to reduce the hazard.

Power services

Electrical design for buildings
New buildings, additions and renovations, from load calculations to permit drawings.

Power distribution design
Switchgear, transformers, feeders and voltages, with room for growth.

Lighting design & controls
Light levels, glare, daylight and occupancy controls, LED retrofits.

Emergency & standby power
Generators, transfer switches and UPS so life safety loads keep running.

UPS system design
Sizing, topology, batteries, bypass and generator coordination.

Data centre electrical design
Utility and generator supply, UPS and distribution to the rack.

Service upgrades & load calcs
Whether your service can take new equipment, and the upgrade if not.

EV charging design
Parkades, workplaces, condos and fleets, with load management.

Solar PV system design
Rooftop and ground-mount, from feasibility to interconnection.

Short-circuit & coordination
Safe interruption of fault current and selective tripping.

Arc flash studies & labelling
Incident energy studies and labels for your electrical safety program.

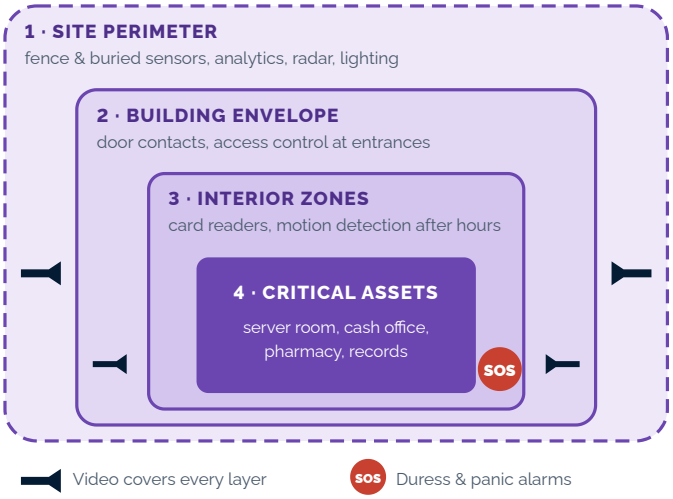
02

Life safety, security and building intelligence

Fire alarm and smoke detection, security and access control, networks, DAS, building automation and controls, designed as one coordinated system with safe egress built in.

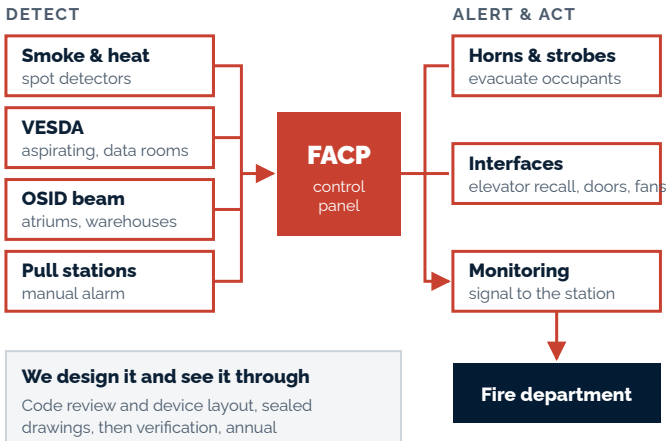
Layered security

DETER · DETECT · DELAY



How a fire alarm system works

DETECT · ALERT · ACT

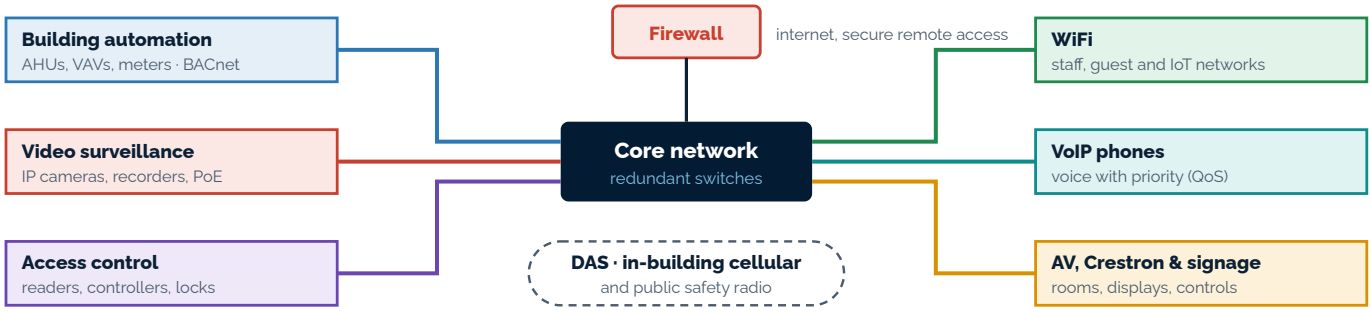


We design it and see it through

Code review and device layout, sealed drawings, then verification, annual testing and monitoring at handover.

One network for the building's systems

SEGMENTED, DOCUMENTED, BUILT FOR GROWTH



Systems services

Fire alarm system design
Code review, device layout, sealed drawings, verification.

Access control systems
Doors, controllers and credentials, with safe egress.

Perimeter intrusion detection
Fence and buried sensors, analytics and radar.

Network design for buildings
Topology, segmentation, redundancy and growth.

VESDA & OSID smoke detection
Where spot detectors struggle: data rooms, atriums.

Intrusion & security systems
Sensors, zoning and monitoring, tied to access and video.

Duress & panic alarms
Fixed, wireless and wearable, with staff locating.

Building automation design
Points lists, sequences, open protocols, cybersecurity.

Sound masking systems
Speech privacy and fewer distractions in offices and clinics.

Video surveillance design
Camera layout, image detail, storage and privacy.

Distributed antenna systems
Cellular and public safety radio coverage indoors.

Instrumentation & controls
Sensors, control panels, PLC logic and HMIs.

T-COMM PRACTICE 3 OF 5

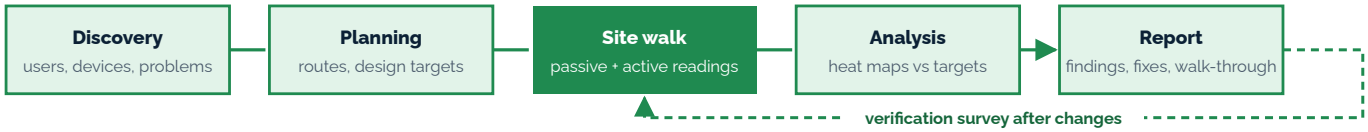
Wireless & communications

03

Enterprise WiFi, cabling, voice, AV and the data centre behind them, designed around your users and your building, then installed, configured and verified on site.

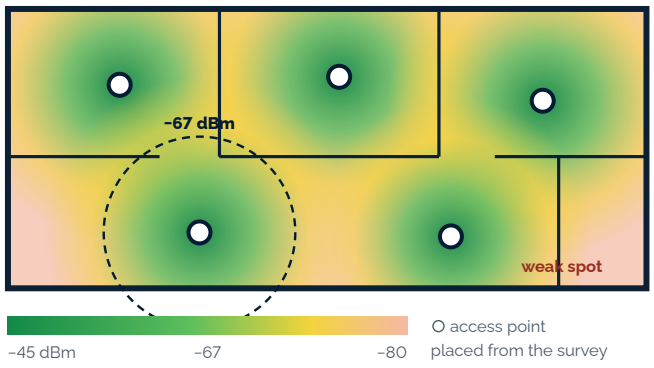
A WiFi survey, from first question to verified coverage

AIRMAGNET SURVEY PRO



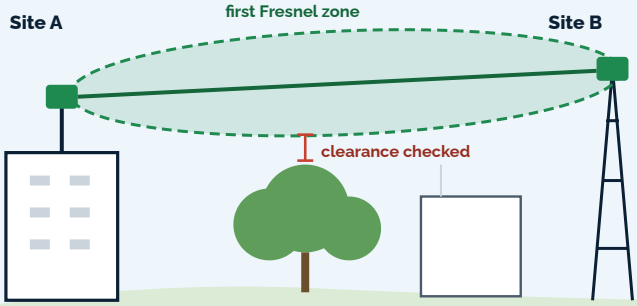
Coverage heat map

SIGNAL STRENGTH



Point-to-point link

RADIO LINE OF SIGHT

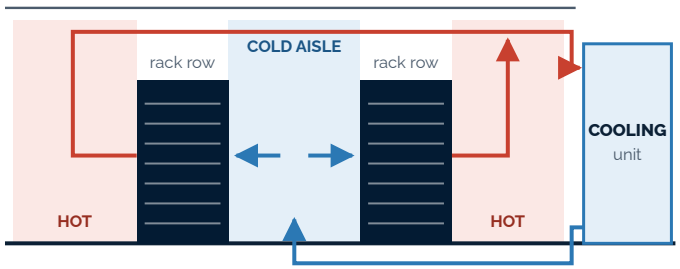


Keep at least 60% of the first Fresnel zone clear, not just the sightline. We study the path, then align and test the link.

Data centre airflow

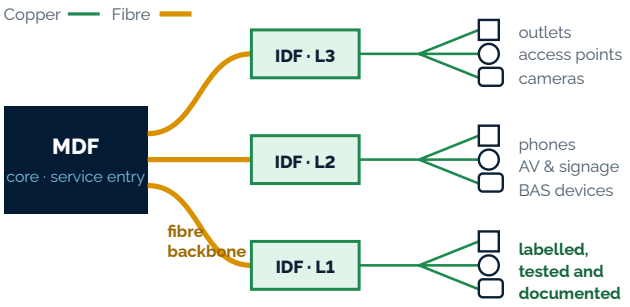
HOT AISLE / COLD AISLE

Keeping supply and exhaust apart gets more from the cooling you have.



Structured cabling

COPPER & FIBRE



Services

WiFi surveys
Heat maps showing where coverage, capacity and interference fall short.

WiFi design & build
Designed around your users, installed, configured and verified.

Point-to-point wireless
Links between buildings, yards and remote sites, from path study to test.

Structured cabling
Copper and fibre, installed, labelled, tested and documented.

Data centre design & build
Server rooms planned around power, cooling, cabling and access.

VoIP design & build
Business phones over your data network, tested before go-live.

AV systems
Boardroom and meeting room AV, installed, tuned and handed over.

Crestron control systems
AV, lighting, shades and climate from one simple interface.

Digital signage
Displays, players and content management, ready to use.

G-INSP PRACTICE 4 OF 5

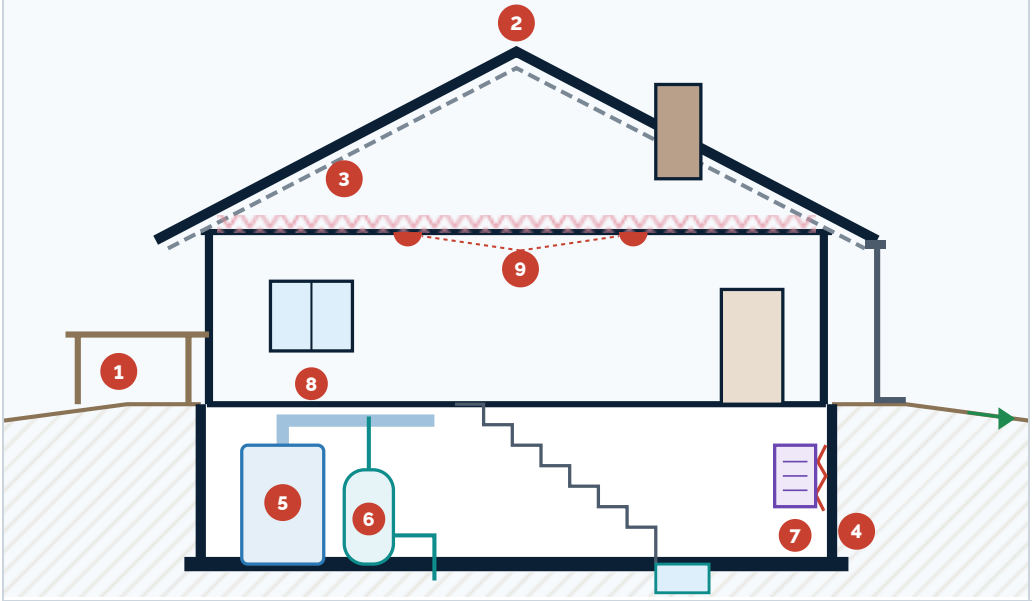
Maintenance & inspections

04

Independent inspections of a building's structure and condition, from a family home to a commercial property, with a written record of what to fix first.

What a home inspection covers

HOUSE SECTION



1. **Exterior & site:** grading, drainage, decks, siding, windows
2. **Roof:** materials, flashing, chimneys, gutters
3. **Attic:** insulation, ventilation, moisture, past leaks
4. **Structure:** framing, slabs, settlement and cracks
5. **Heating & ventilation:** furnace, AC, HRV, venting
6. **Plumbing:** piping, water heater, sump, leaks
7. **Electrical:** service, panel, GFCI and AFCI, older wiring
8. **Interior:** walls, floors, stairs, water damage
9. **Life safety:** smoke and CO alarms, garage separation

Your inspection, on the day and after

HOMES

Book — before your deadline
Walk it with us — ask questions as you go
Hear the findings — before you leave
Report — within two days

1 — 2 — 3 — 4

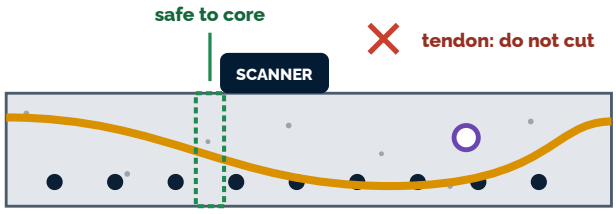
INSPECTION DAY — DAY 2

Why walking through matters

You see a problem in person, and learn where the water shut-off, panel and furnace filter are. That helps on a condition deadline.

Scan before you cut

CONCRETE X-RAY & GPR



● rebar — post-tensioned tendon ○ conduit

X-ray: detailed image, needs both sides. GPR: one side, on the spot.

Services

Commercial building inspections
Structure, envelope, mechanical, electrical and life safety, with a clear written report.

Home inspections
Walk the property with the inspector, hear findings on the day, report within two days.

Occupancy inspections
Find deficiencies before the authority's final inspection, so you occupy on schedule.

Roof inspections
Flat and sloped roofs: leaks, drainage, ventilation and wear, before interior damage.

Concrete inspections & X-ray
Cracks and deterioration, and scanning before cutting or coring.

Welding inspections
Welds on steel, supports and fabrications, checked against drawings and standards.

G-SAFE PRACTICE 5 OF 5

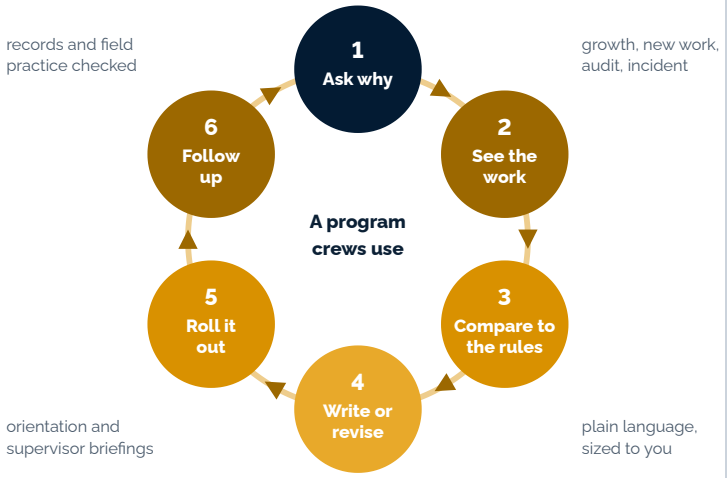
Safety programs

05

Written programs, reviews and training for the highest-risk work on a site, matched to your work and your province. The goal is a program crews actually use, not a binder on a shelf.

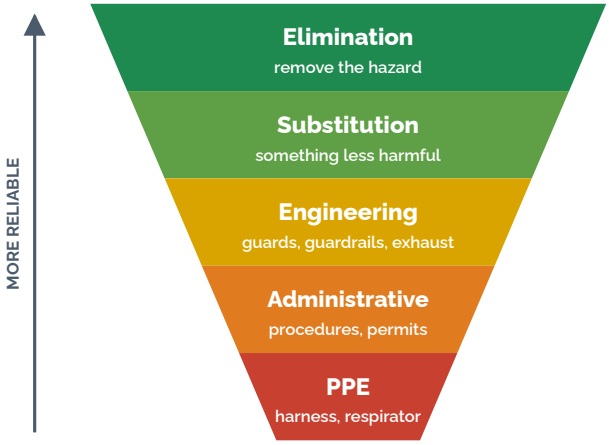
How we build or review a program

SIX STEPS



Hierarchy of controls

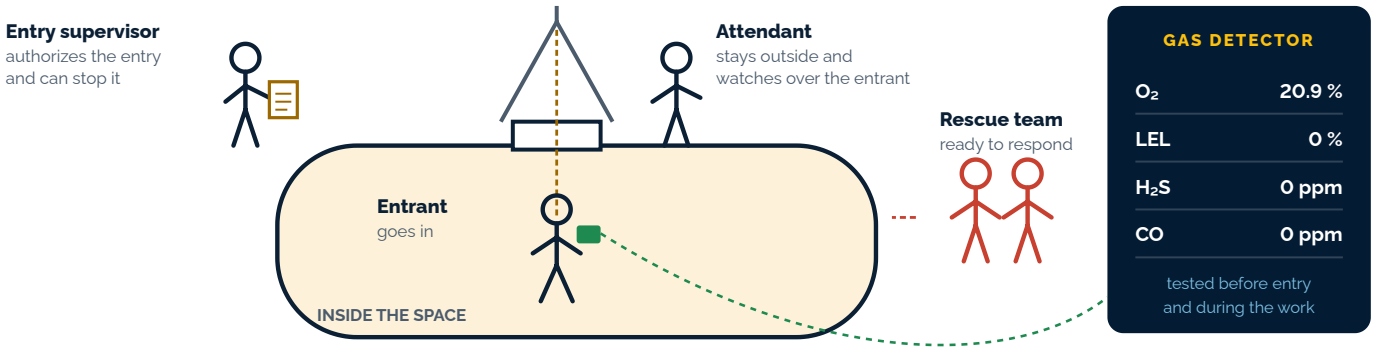
WORK DOWN THE LIST



The higher a control sits, the less it depends on people.

Confined space entry: everyone has a named role

PERMIT · TEST · RESCUE



Services

Safety program development & review

New programs written from the ground up, or existing ones reviewed against your provincial legislation, client expectations and how the work is really done.

Confined space programs

Identify confined spaces, assess their hazards, and build entry, permit and rescue procedures that meet provincial rules.

H2S Alive training

Plan H2S Alive training for your crews and build hydrogen sulphide hazards into a working safety program.

Lift safety & fall arrest

Review fall protection plans, anchors, fall arrest equipment and lifting practices, and write plans workers can follow.

ACROSS THE LIFE OF A BUILDING

From the day you buy it to the day you upgrade it

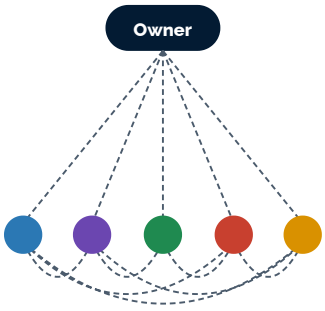
Buildings need different help at different stages. Because one team covers all five practices, the findings from an inspection feed straight into the design, and the design targets carry through to the test report.

	Buy or lease due diligence	**Plan & design** targets, drawings	**Build** installation	**Commission** test, occupy	**Operate** maintain, inspect	**Upgrade** renovate, add load
Building systems	Mechanical & electrical condition			Fire alarm verification	Generators, elevators, cranes, AEDs	Fire investigations & restoration
Electrical	Service capacity check	Power, lighting, fire alarm, security design	Construction support	Arc flash labels at handover	Arc flash & coordination studies	EV charging, solar PV, service upgrades
Wireless & comms		WiFi survey & network design	Cabling, WiFi, AV, VoIP	Post-install survey	Troubleshooting surveys	Data centre, Crestron, signage
Inspections	Home & commercial inspections	Concrete condition	Welding inspections	Occupancy inspections	Roof inspections	Scan before cutting or coring
Safety		Hazard assessment	Fall protection, lift plans		Program review, H2S Alive	Confined space procedures

Why one team

FEWER HAND-OFFS

Five separate firms



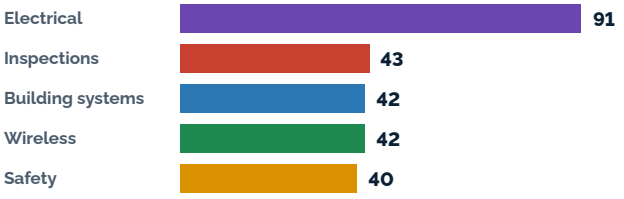
5 contracts, 5 schedules, 5 sets of drawings

ehZee



one point of contact, findings shared

258 plain-language guides FREE AT EHZEE.CA/GUIDES



- What is a WiFi site survey?
- Testing, adjusting and balancing (TAB) explained
- EV charging in condos and multi-unit buildings
- A home inspection checklist for buyers
- What is a confined space?
- The real cost of deferred maintenance

What you receive

Inspection report
ranked findings, photos

Coverage heat map
signal, SNR, channels

Drawings & specs
single-lines, permit sets

Test & balance reports
measured vs design

Labels & procedures
arc flash, entry permits

Programs & plans
safety manuals, budgets

THE PEOPLE ON YOUR PROJECT

A small team you deal with directly.

Program management, field experience and decades of mechanical engineering, in one team that takes the job from the first site walk to the final report.

HG

Hazim Gaber

CHIEF EXECUTIVE OFFICER

PMP, PgMP, Lean Six Sigma Black Belt. A program manager and IT specialist who has delivered hundreds of initiatives for Fortune 500 companies and smaller firms. Mechanical engineering graduate of the University of Alberta and author of seven books and training programs, including an enterprise WiFi course taken by more than 2,000 students.

SG

Soheipp Gaber

CHIEF OPERATING OFFICER

PMP. Runs operations with hands-on field experience in plumbing, mechanical and electrical work, so our plans account for how jobs actually get built.

MI

Dr. Magdy Istafanous

DIRECTOR OF ENGINEERING

Ph.D. More than 35 years in mechanical systems across thousands of industrial and government projects. Reviews designs for code compliance and mentors our junior engineers.

Book a site survey

Tell us about the building and what is going wrong. We will start by asking why.

CALL **1.833.888.0091**

EMAIL **contact@ehzee.ca**

WEB **www.ehzee.ca**

HEAD OFFICE
Edmonton
10180 101 St NW, 34th Floor
Edmonton, AB T5J 3S4

OFFICE
Calgary
888 3rd St SW
Calgary, AB T2P 5C5

OFFICE
Vancouver
1021 West Hastings St
Vancouver, BC V6E 0C3

OFFICE
Toronto
100 King St W
Toronto, ON M5X 1A9

WHY THE NAME? OUR SERVICE LIST RUNS FROM A TO Z

Access control · AED inspections · Air and water filtration · Arc flash studies · AV systems · Building automation · Commercial inspections · Compressed air inspections · Concrete and X-ray · Confined spaces · Coordination studies · Crane inspections · Crestron control · Data centre electrical · Data centres · Digital signage · Distributed antenna systems · Duress alarms · Electrical design · Electrical inspections · Elevator inspections · Emergency power design · EV charging design · Fire alarm design · Fire inspections · Fire investigations · Generator inspections · H2S Alive training · Home inspections · Instrumentation and controls · Intrusion security · Ladders and scaffolding · Lift safety, fall arrest · Lighting design · Mechanical inspections · Network design · Occupancy inspections · Perimeter detection · Point-to-point wireless · Power distribution · Roof inspections · Safety programs · Service upgrades · Solar PV design · Sound masking · Structured cabling · UPS design · VESDA and OSID · Video surveillance · VoIP systems · Welding inspections · WiFi design and build · WiFi surveys

EhZee Engineering

Building systems, engineered from eh to Zee.

© 2026 ehZee Engineering Corporation