

Fire Suppression Design Services

City of Vancouver • City of Surrey



FIRE SUPPRESSION CONSULTING ENGINEERING

Design of Wet, Dry, Preaction, Deluge, and Foam-Based Automatic Sprinkler Systems

Standpipe System Design

Fire Pump Design

Hydraulic Calculations

Fire Suppression System Specifications

Water Supply Flow Testing

Tender Process, Permitting Process and Contract Administration

Independent Professional Reviews Related to Fire Suppression Systems

Existing Fire Suppression System Assessments

Sprinkler Based Alternative Solutions

ADDITIONAL SERVICES

Fire Alarm Design

Mass Notifications Systems

Existing Fire and Life Safety Assessments

Building and fire Code Consulting Services

Smoke, Fire, Egress and Pedestrian Modelling

Fire-Resistance, Heat Transfer Analysis

Performance-Based Design and Alternative Solutions

Independent Professional Services

Certified Professional Services

Occupational Health and Safety Compliance

Risk Assessment & Hazard Analysis

Security System Design

Security Risk Assessments



JENSEN HUGHES

Advancing the Science of Safety

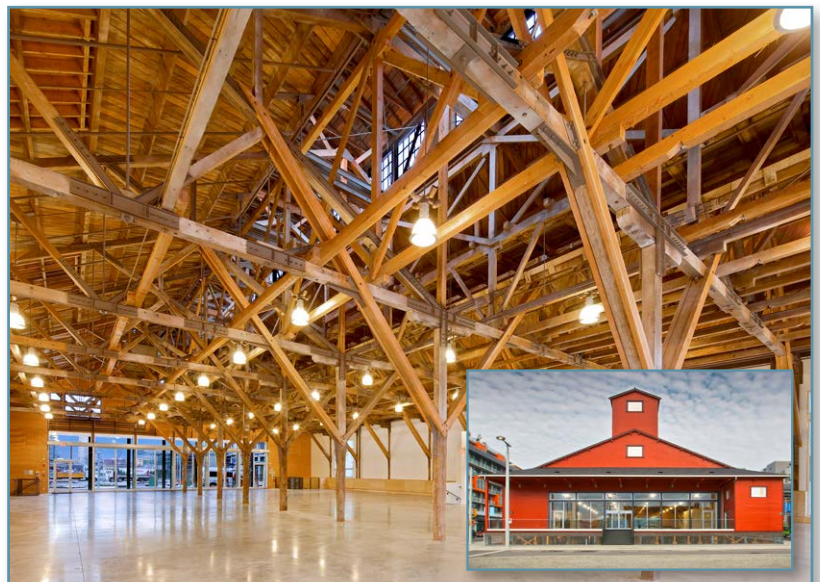
JENSEN HUGHES has been providing consulting engineering services related to Building Code, fire and life safety in British Columbia for over 40 years, and internationally for more than 50 years. From our 7 offices across Canada and over 65 offices worldwide, we serve our clients by providing innovative solutions for the most complex issues in fire and life safety.

Municipal Changes to Fire Suppression System Submittal Requirements

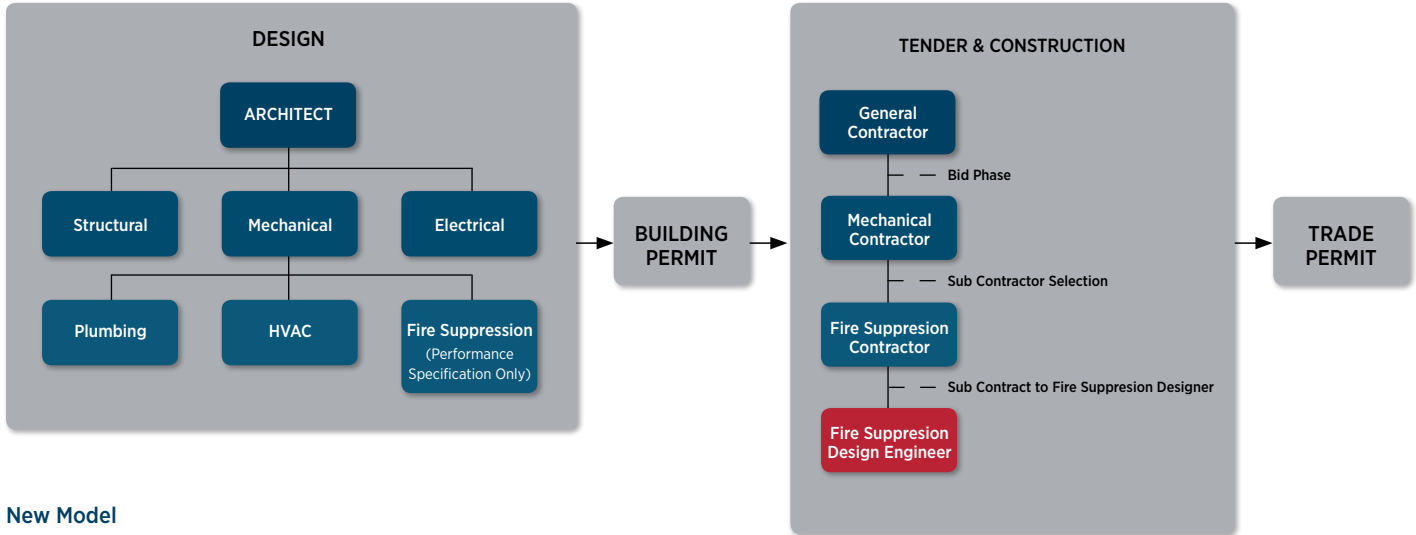
The City of Vancouver and the City of Surrey have introduced new regulations requiring complete fire suppression system design drawings to be submitted at the Building Permit Application stage. These new regulations require complete detailed design of the fire suppression system including system component arrangement and hydraulic calculations. These drawings are then used for both Building Permit and Sprinkler Trade Permit applications and installations.

What Does this Change Mean?

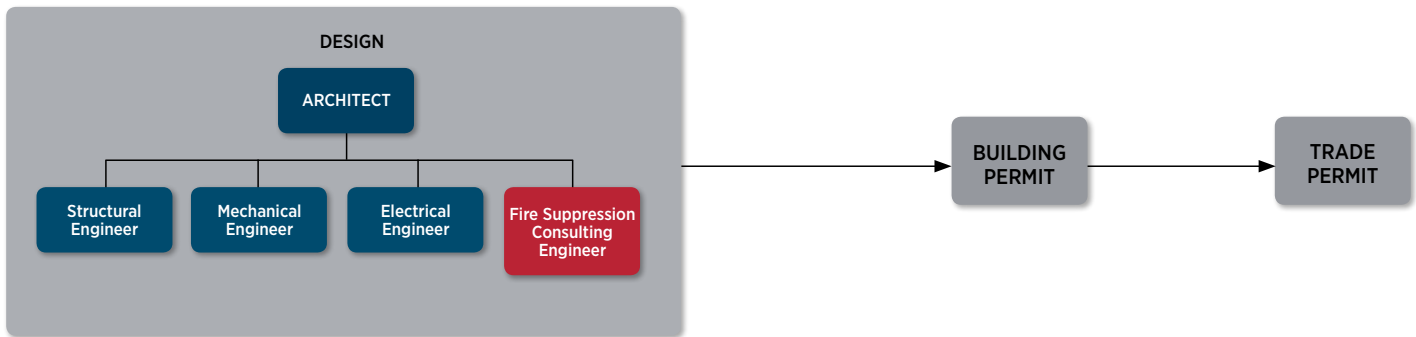
These new municipal regulations result in a fundamental change to how fire suppression is part of the design process. Traditionally performance design specifications were produced by the consulting team, and detailed design was produced by a fire suppression contractor's engineer. The sprinkler trade permits were often approved months after the Building Permit was issued and construction had commenced. Under the new consulting engineering model, both fire suppression design and tender are a function of the design team.



Traditional Model



New Model



Balancing Design Integrity with Fire and Life Safety

Understanding the Design Process

The success of any project is dependent on the experience of each consultant. We understand the design process, as well as municipal permitting processes.

JENSEN HUGHES provides fire suppression design services not only to architects, owners and developers, but also to trade contractors. We have the specialized software and trained technicians to design sprinkler systems, perform hydraulic calculations and conduct field reviews.

Benefits from Coordinating Code and Fire Suppression

JENSEN HUGHES considers the architectural design intent and the owner’s and end-user’s interest with respect to the aesthetics of the final system installation. Careful consideration is given to the quality of products and equipment for long term operations and maintenance. When coordinated with Code Consulting, our fire protection engineers provide valuable input to the development of fire suppression based Alternative Solutions.

Commitment + Research

JENSEN HUGHES’ staff is committed to the improvement of Canadian Codes and NFPA Standards as evidenced by participation on over 40 Technical Committees. Representation is provided on the key codes, including: sprinkler system, standpipe system, fire pump, fire alarm, life safety, fire testing standards, and building codes. This unique position enables clients to benefit from our in-house background knowledge of regulatory intent.

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