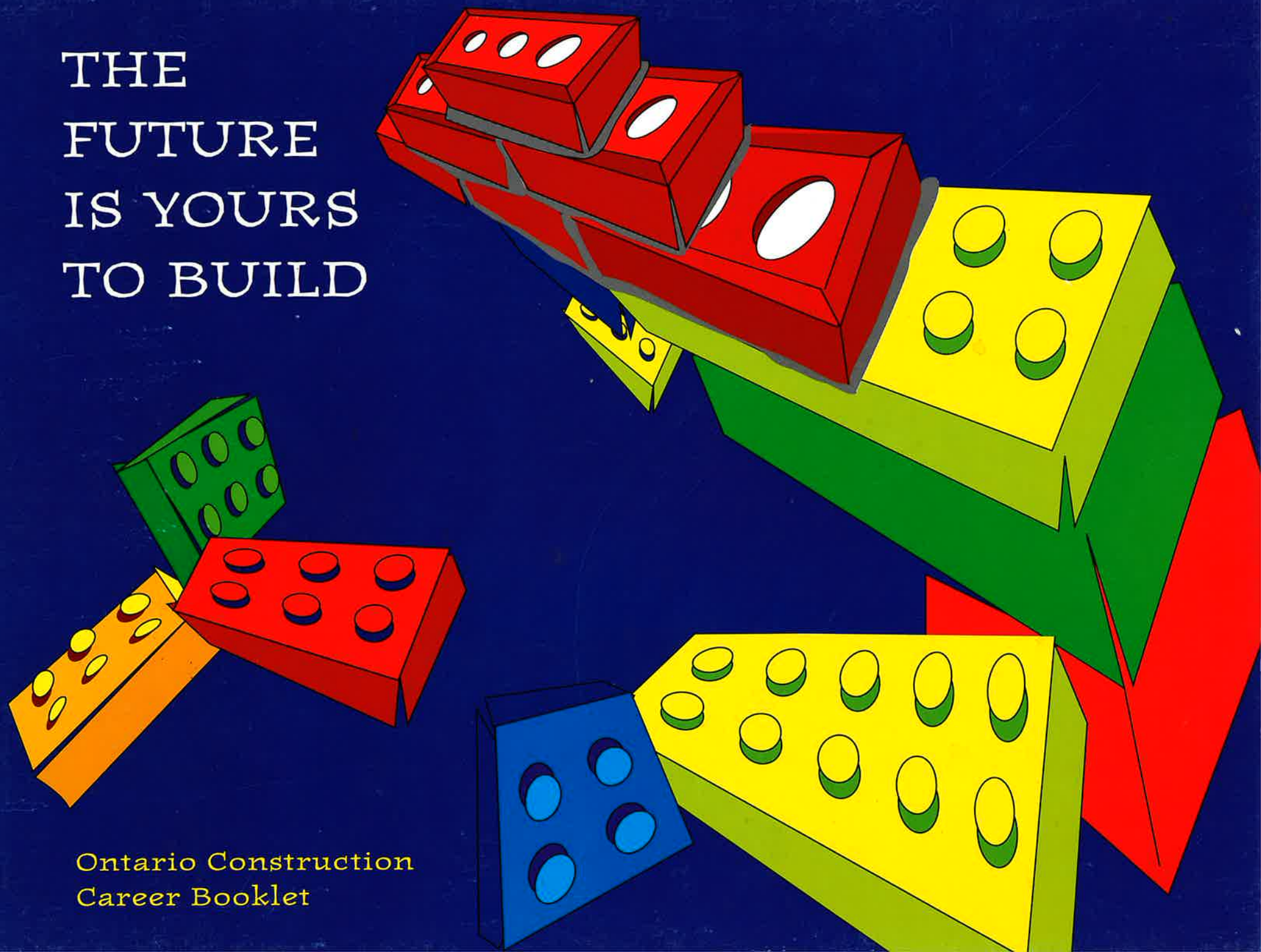


THE FUTURE IS YOURS TO BUILD



Ontario Construction
Career Booklet

CONTENTS

Introduction to Constructionpages i-ii

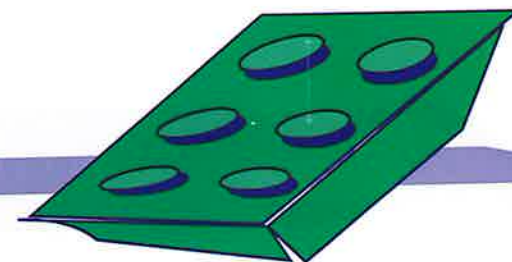
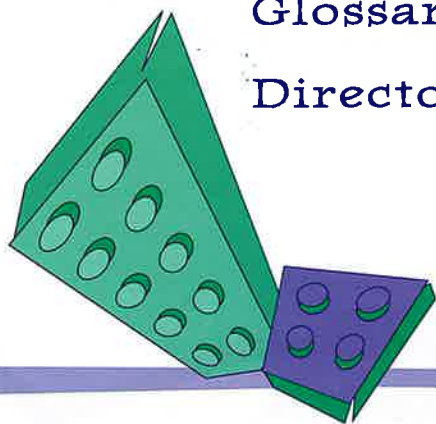
Career Descriptionspages 1-26

- 
- | | | |
|---|--|--|
| 1 Architect | 18 Engineering Technician/Technologist | 36 Registered Building Technician/Technologist |
| 2 Architectural Technician | 19 Equipment Operator | 37 Reinforcing Rod Worker |
| 3 Architectural Technologist | 20 Estimator | 38 Roofer |
| 4 Architectural Woodworker | 21 Fence Installer | 39 Sewer and Watermain Pipelayer |
| 5 Boilermaker | 22 Floor Covering Installer | 40 Sheet Metal Worker |
| 6 Brick & Stone/Restoration Mason | 23 Glazier/Metal Mechanic | 41 Skilled Labourer |
| 7 Carpenter | 24 Health and Safety Co-ordinator | 42 Specifier |
| 8 Cement Mason | 25 Insulator | 43 Steam Fitter |
| 9 Concrete Formworker | 26 Interior Designer | 44 Sprinkler and Fire Protection Installer |
| 10 Construction Millwright | 27 Landscape Architect | 45 Structural Steel Erector/Ironworker |
| 11 Crane Operator | 28 Painter and Decorator | 46 Superintendent |
| 12 Demolition Worker | 29 Plumber | 47 Surveyor |
| 13 Drywall Acoustic Mechanic/
Drywall Finisher & Plasterer | 30 Power/Construction Lineworker | 48 Surveyor Technician/Technologist |
| 14 Electrician | 31 Professional Quantity Surveyor | 49 Tile/Terrazzo/Marble Setter |
| 15 Engineer - Civil | 32 Professional Renovation Contractor | 50 Urban and Land Use Planners |
| 16 Engineer - Electrical | 33 Project Co-ordinator | |
| 17 Engineer - Mechanical | 34 Project Manager | |
| | 35 Refrigeration/Air Conditioning Mechanic | |

Construction Chartpages 27

Glossary of Termspages 28-29

Directory of Resourcespages 30-33





From day one I really liked it. I felt I had a natural ability to be a welder, if you can imagine that. I was so excited when I worked, it was great. My hands would do what I wanted them to.

—Danielle Ethier, Welder



I always wanted to live in a nice house and be independent by earning a decent wage. Carpentry was the ideal job for me because it gave me all those things.

—Donna Allary, Carpenter



Architect

Job Title: Architect

Job Description:

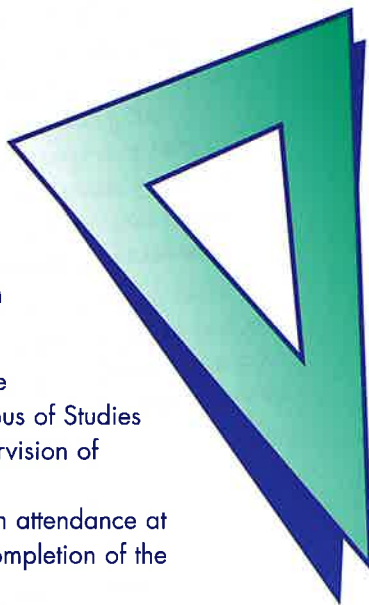
Designs buildings, including the preparation of detailed construction drawings and specifications for the buildings, and advises on their construction. May specialize in designing residential, industrial, commercial and institutional or public buildings.

Education:

- Carleton University
- University of Toronto
- University of Waterloo
- A professional degree (usually 5 years) from a university or post secondary institution
- or
- "Apprenticeship Route" i.e. completion of The Royal Architectural Institute of Canada Syllabus of Studies
- + a minimum of 3 years working under supervision of an architect
- + an architectural license is conditional upon attendance at Admission Course Lectures, and successful completion of the Architectural Registration Examinations

For up-to-date information:

School guidance office
Ontario Association of Architects
Council of Ontario Construction Associations



Architecture Technician



Job Title: Architecture Technician

Job Description:

Prepares accurate working or detailed drawings for construction, engineering, mapping, architectural companies and other purposes. Works from notes, sketches, calculations, specification sheets and other data. Usually operates computer-aided drafting systems (CAD/CAM)

Education:

- High school completion is required
- College drafting diploma
- or
- several years related experience plus college
- or
- industry drafting courses
- plus accreditation through the Association of Architectural Technologists of Ontario

For up-to-date information:

School guidance office
Association of Architectural Technologists of Ontario
Council of Ontario Construction Associations



Job Title: **Architectural Technologist**

Job Description:

Works with architects, engineers or corporations, and may be self employed, in building design, drawings and specification preparation, the construction process and administration. May also work with government agencies in areas of administration, code enforcement or facilities management.

Education:

- Three to four years community college diploma plus accreditation through Association of Architectural Technologists of Ontario
- Ryerson Polytechnic offers degree
- Community colleges offer diploma courses

For up-to-date information:

School guidance office
Association of Architectural Technologists of Ontario
Council of Ontario Construction Associations

Job Title: **Architectural Woodworker**

Job Description:

Supplies, finishes and installs all solid lumber - plywood - plastic lam - cabinets, including hardware that is seen by the eye or exposed in a building. It is the manufacture - finishing and installation of doors and frames (veneered or solid wood), cabinets (kitchen or special), window frames or screens, paneling (veneered or solid), base board and trim, and any other specialty items that are constructed of wood or plastic lam.

Education:

- Minimum grade 10

For up-to-date information:

School guidance office
Architectural Woodwork Manufacturers Association of Canada -
Ontario Chapter
Council of Ontario Construction Associations

**Architectural
Technologist**

**Architectural
Woodworker**

Boilermaker

Job Title: Boilermaker

Job Description:

Constructs and installs boilers, erects pressure vessel assemblies and water storage tanks, and components at power generating plants. Tasks include: loading and unloading materials, rigging materials for movement, directing crane operations, assembling/disassembling scaffolds and platforms, changing crane booms, inspecting and caring for rigging accessories and equipment, burning, gouging and welding, removing and replacing tubes, interpreting blueprints, laying out components, erecting support steel beams and columns, using various welding machines, aligning and fittings components.

Education:

- Minimum 18 years old
- Pre-Assessment examination
- 26 weeks technical training
- 6,600 hours on-the-job training (usually 4 to 5 years)
- Red Seal Interprovincial License available

For up-to-date information:

School guidance office
International Brotherhood of Boilermakers, Iron Shipbuilders,
Forgers and Helpers
Council of Ontario Construction Associations
Boilermaker Contractors Association

Brick & Stone Restoration Mason

Job Title: Brick & Stone/ Restoration Mason

Job Description:

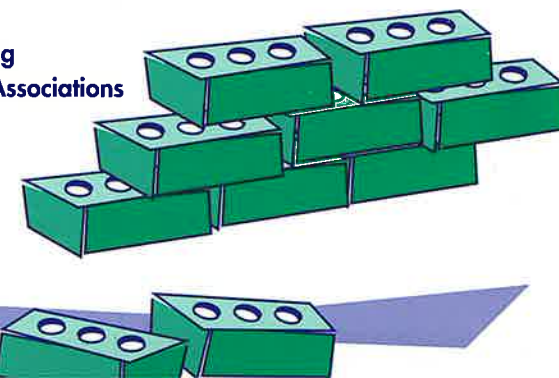
Constructs unit masonry wall systems with blocks, bricks, stone, air barrier, insulation and reinforcing. Masons also restore walls, foundations, fireplaces, chimneys, smokestacks etc. in industrial / commercial buildings and designated heritage buildings and monuments. In refractories, masons line or re-line furnaces, kilns, coke ovens and acid tanks used in steel production, forges, glaze, glass, cement and clay products manufacturing. Interprets and uses blueprints, sketches, specifications, codes and manufacturers' literature.

Education:

- Grade 12 or equivalent
- Minimum age of 16
- Apprenticeship 5,600 hours (3 to 4 years)
- Red Seal certification (interprovincial) is available
- This is a voluntary, regulated occupation

For up-to-date information:

School guidance office
Algonquin College
Canada Masonry Centre
Ministry of Education and Training
Council of Ontario Construction Associations



Job Title: Carpenter

Job Description:

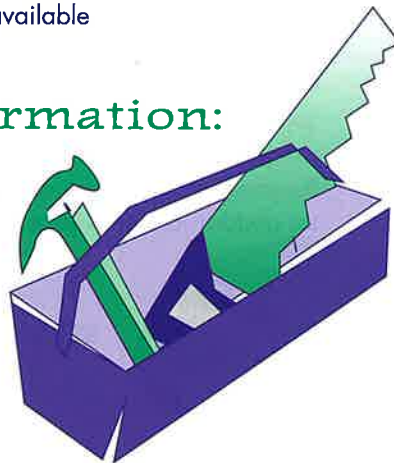
The scope of work performed by a carpenter includes, but is not limited to, the layout, construction, erection, installation and/or repair of structures and/or fixtures having commercial, residential or industrial applications. The carpenter's skill in understanding architectural drawings, building codes and the use of varied hand and power tools to work with wood, plastic, metal and other types of building materials, allows them to construct or repair warehouses, hospitals, stadiums and arenas, office or apartment buildings, refineries, houses, bridges, water treatment plants, bleachers and entertainment stages, highways etc. In addition, a carpenter also performs some non-traditional tasks such as cutting and welding of metal and the use of computerized machinery.

Education:

- Minimum age 16
- High school completion is preferred with good math and literacy skills
- Apprenticeship 4 years (7,200 hours and 3 - eight-week school sessions)
- Red Seal Certification (interprovincial) is available
- This is a voluntary, regulated trade

For up-to-date information:

School guidance office
Carpenters' District Council of Ontario
Carpenters Local 27
Ministry of Education
and Training, Apprenticeship
Client Services
Council of Ontario Construction
Associations



Carpenter

Job Title: Cement Mason

Job Description:

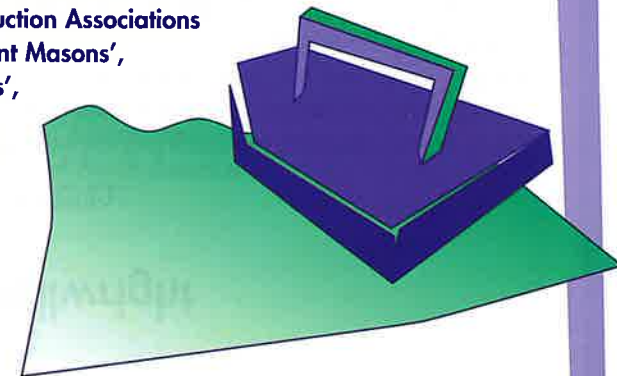
Cement masons are skilled concrete trade specialists who finish both concrete floor and wall surfaces. A cement mason is a specialist in a variety of finishes including coloured concrete, exposed aggregate, imprinted concrete, epoxy finishes and concrete patching and repair methods.

Education:

- In-school apprenticeship training programs are operated throughout the year at the Ambercroft Training Centre in Aurora.
- On-site apprenticeship training is provided by employers throughout the province.
- While no formal education requirements are mandatory, good verbal and written skills are recommended for advancement in the construction industry.

For up-to-date information:

School guidance office
Concrete Floor Contractors Association
Council of Ontario Construction Associations
Operative Plasters', Cement Masons',
Restoration Steeple Jacks',
International Association
of the United States and
Canada Local 598



Cement Mason

Concrete Formworker

Job Title:

Concrete Formworker

Job Description:

One who sizes, constructs and dismantles the total system of support for cast-in-place concrete including but not limited to the mould or sheathing which directly contacts the concrete, all supporting and bracing members, all hardware and fastening devices or material, all interior spacing material, all divisions, water stop and other non-concrete material embedded in the concrete, all exterior bracing material, all scaffolding, safety rails and work platforms attached to or associated with the formwork in commercial buildings, bridges, office buildings, residential and environmental structures.

Education:

- Formwork carpenter: see requirements under Carpenter
- Formwork labourer: minimum Grade 8; four month training at Labourers Union Training Centre, or training by employer.

For up-to-date information:

School guidance office

Concrete Forming Association of Ontario (commercial)

Council of Ontario Construction Associations

Concrete Formwork Association of Ontario (residential)

Carpenters District Council of Ontario

LIUNA, Ontario Provincial District Council

Carpenters Local 27

Construction Millwright

Job Title:

Construction Millwright

Job Description:

Installs, repairs and maintains mechanical machines (and their components, related devices and systems) during construction phase of new plants, commercial and institutional buildings and construction sites while working for both contractors and/or inside supervision or engineering departments; installs turbines, boilers, reactors, conveyer systems and automated systems; knowledge of both construction and manufacturing processes, metallurgy, welding, blue print reading and precision measuring instruments.

Education:

- Minimum age 16
- High school graduation preferred
- Apprenticeship of 4 years including 3 eight-week in school sessions
- Red Seal certification (interprovincial) is available
- This is a voluntary, regulated occupation

For up-to-date information:

School guidance office

Association of Millwrighting Contractors of Ontario Inc.

Council of Ontario Construction Associations

Millwright Regional Council of Ontario

Job Title:

Crane Operator/Hoisting Engineer

Job Description:

Operates cranes or draglines to lift, position or place machinery, equipment and other objects at construction site or industrial facilities, ship loading docks, railway yards, offshore drilling rigs and other locations. Operates cranes equipped with dredging attachments to dredge waterways and other areas.

Education:

- Minimum age 16
- High school completion is preferred
- Apprenticeship 6,800 hours
- Red Seal certification is available for mobile crane operators
- This is a compulsory, regulated occupation

For up-to-date information:

School guidance office
Crane & Hoist Association of Ontario
Crane Rental Association of Ontario
Ministry of Education and Training
Council of Ontario Construction Associations
International Union of Operating Engineers Local 793

Job Title:

Demolition Worker

Job Description:

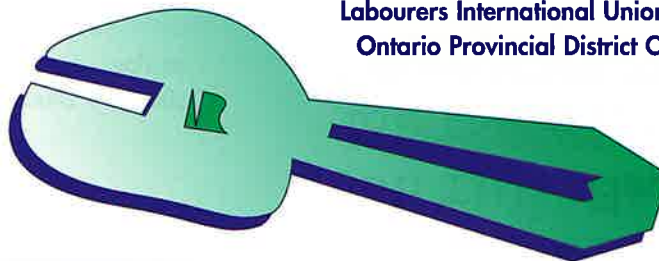
Involved in a wide variety of projects, including: structural demolition of buildings, interior gutting of offices, equipment dismantling and salvage and hazardous materials remediation. Work involves a range of skills, from manual activities to use of small tools and specialized equipment to operation of heavy construction machines.

Education:

- High school completion is preferred
- Apprenticeship of 3,600 hours (approx. 2 years)
- This is a non-regulated occupation

For up-to-date information:

School guidance office
Metropolitan Toronto Demolition Contractors Inc.
Council of Ontario Construction Associations
Labourers International Union of North America
Ontario Provincial District Council



Crane Operator/
Hoisting Engineer

Demolition Worker

Drywall Acoustic Mechanic Drywall Finisher & Plasterer

Job Title:

Drywall Acoustic Mechanic Drywall Finisher & Plasterer

Job Description:

Measures, cuts and installs drywall sheets to form walls and ceilings in buildings and other structures; installs acoustic and other special ceilings; secures laths to walls and ceiling.

Applies filling compound and tape to wallboard to prepare in a sequence of different stages, surfaces for different types of decoration such as painting, wallpapering, special coatings and various types of texturing. Mouldings, ornamental work and exterior stucco are part of the plastering trade.

Education:

- Minimum of Grade 10 (general level math and English required)
- Minimum age 16
- Apprenticeship of 5,400 hours to include two blocks each of 8 weeks in-school training plus on-the-job practical work experience.
- This is a non-regulated occupation

For up-to-date information:

School guidance office
Interior Finishing Systems Training Centre
Interior Systems Contractors Association of Ontario
Acoustical Association of Ontario
Ministry of Education and Training
Council of Ontario Construction Associations
Ontario Acoustical & Drywall District Council
International Union of Painters & Allied Trades

Electrician

Job Title: Electrician

Job Description:

Construction and Maintenance Electrician

Plans installations from blueprints and specifications and in compliance with the electrical code on residential, commercial and industrial buildings; installs panel boards, switch boxes, pull boxes and other related devices; measures, cuts, threads, bends, assembles and installs conduits and other kinds of electrical conductor enclosures which connect panels, boxes, outlets and other devices; tests equipment and systems. May also work in new technology of building controls and communication equipment and in compliance with the electrical code.

Domestic and Rural Electrician

Plans installations from blueprints and specifications and in compliance with the electrical code in construction repair, remodeling, alteration or maintenance of houses, multiple-dwelling buildings with fewer than six units or buildings and structures used for farming; installs panel boards, switch boxes, pull boxes and other related devices; measures, cuts, threads, bends, assembles and installs conduits and other kinds of electrical conductor enclosures which connect panels, boxes, outlets and other devices; tests equipment and systems and in compliance with the electrical code.

Education:

- Minimum age 16
- High school graduation preferred
- Construction and Maintenance Electrician Apprenticeship (4 1/2 years)
- Domestic and Rural Electrician Apprenticeship (3 1/2 years)
- Red Seal certification is available
- This is a compulsory, regulated trade

For up-to-date information:

School guidance office
Electrical Contractors Association of Ontario
Council of Ontario Construction Associations
IBEW Construction Council of Ontario

Job Title

Engineer–Civil

Job Description:

Plans, designs, develops and manages projects for the construction or repair of structures such as dams, bridges, ports, water and waste management systems, pipelines, roads and buildings. Also conducts feasibility, traffic pattern, environmental impact and other studies for construction proposals, and makes recommendations. Applies science for the planning, design, construction, operation or management of buildings, bridges, harbours, dams, highways, railways, airports, water supply and distribution systems, waste collection and storm drainage, flood control structures and other public works.

As the branch of Civil Engineering is so broad, both in the education and practice of the profession, it is divided into a number of specialized fields:

Domestic and Rural Engineer:

Plans and designs municipal water facilities, sewage treatment plants, storm water and solid waste management, and the control of rivers and air pollution.

Structural Engineer:

Designs bridges, skyscrapers, factories and power plant buildings, often working in close co-operation with architects to ensure that the functional and aesthetically pleasing structure which the architect creates, is structurally sound and safe for human use or occupation.

Transportation Engineer:

Plans, designs, constructs, and maintains transportation systems such as roads, airports, harbours, railways, subways and other forms of public transit.

Hydrotechnical Engineer:

Works in the control and utilization of water systems such as rivers, lakes and oceans and hydraulic structures such as dams and canals.

Geotechnical Engineer:

Determines the geological conditions associated with the construction of structures such as foundations, tunnels and dams following careful assessment of the engineering characteristics of soil, rock and groundwater, and the consideration of factors related to safety and economics.

Construction Engineer:

Plans and schedules projects from start to finish and is responsible for seeing that the work is done safely, on time, within budget and in accordance with the designer's specifications.

Education:

- Carleton
- Laurentian
- McMaster
- Waterloo
- Guelph
- Royal Military College
- Queen's
- Western Ontario
- Lakehead
- Ryerson
- University of Toronto
- Windsor

+ 4 - 5 years study

+ 4 years work experience

+ Final Examination for designation from Professional Engineers Ontario

Comments:

Usually grades of 80% or more in maths and sciences are required for admission into Engineering programs. Algebra, geometry, calculus, physics and chemistry OAC's are required and depending on program perhaps other maths and sciences.

For up-to-date information:

School guidance office

Professional Engineers Ontario

Consulting Engineers of Ontario

Council of Ontario Construction Associations



Engineer-Electrical

Job Title: Engineer-Electrical

Job Description:

Designs, plans and evaluates electrical or electronic equipment and systems; directs or supervises installations, testing, inspection and maintenance activities; specializes in many areas such as electrical power generation and transmission, communication systems, instrumentation and control systems, computer applications and software design.

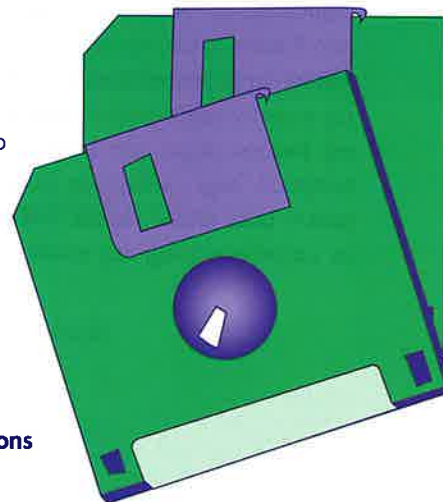
Education:

- Carleton
- Guelph
- Lakehead
- Laurentian
- McMaster
- Queen's
- Royal Military College
- Ryerson
- University of Toronto
- Waterloo
- Western Ontario
- Windsor

- + 4 - 5 years study
- + 4 years work experience
- + Final Examination for designation from Professional Engineers of Ontario

For up-to-date information:

School guidance office
Professional Engineers Ontario
Consulting Engineers of Ontario
Council of Ontario Construction Associations



Engineer-Mechanical

Job Title: Engineer-Mechanical

Job Description:

Involves the design, development, manufacture, sales, operation & maintenance of machinery and devices that produce, transmit or consume power or employ heat energy in everything from aircraft engines to railway locomotives. Provides design & building services such as heating, ventilating, air conditioning and plumbing (HVAC). May prepare specifications & cost estimates.

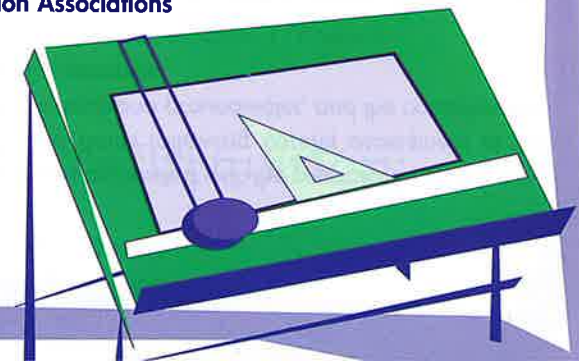
Education:

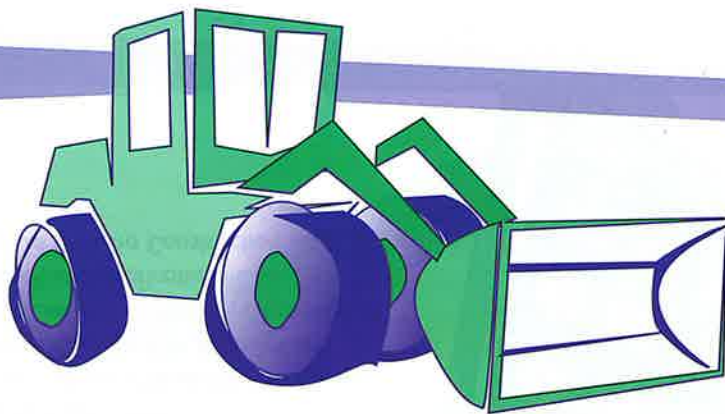
- Carleton
- Guelph
- Lakehead
- Laurentian
- Royal Military College
- Ryerson
- McMaster
- Queen's
- University of Toronto
- Waterloo
- Western Ontario
- Windsor

- + 4 - 5 years study
- + 4 years work experience
- + Final Examination for designation from Professional Engineers Ontario

For up-to-date information:

School guidance office
Professional Engineers of Ontario
Consulting Engineers of Ontario
Council of Ontario Construction Associations





Job Title: **Engineer Technician/Technologist**

Job Description:

Functions as part of the engineering team in one of 13 major disciplines including chemical, civil, electrical, mechanical or environmental technological functions. Levels of responsibility range from project manager or maintenance-engineering supervisor to consulting on their own. Technologists' duties would include measurements and analysis, design, supervision of field installations and quality control. Technicians do similar work that is less complex but highly specialized.

Education:

Technician – 2 year college diploma

Technologist – 3 year college diploma

For up-to-date information:

School guidance office

Ontario Association of Certified Engineering Technicians and Technologists

Council of Ontario Construction Associations

**Engineer Technician/
Technologist**

Job Title: **Equipment Operator**

Job Description:

Operates heavy equipment on construction sites such as bulldozers, gradalls, cranes, boring machines, trenching machines, loaders, excavators, backhoe loaders. Duties may include general maintenance such as checking oil levels, greasing the equipment, checking for cracked metal and worn hydraulic hoses.

Education:

- High school completion is preferred
- Training may occur with union training centres or the employer
- Cranes, boring and trenching machines require specialty training
- This is a voluntary, regulated occupation

Comments:

Must be able to understand and comply with imposed regulations; must be safety conscious, should be mechanically inclined with good eye-hand co-ordination and good to excellent vision is required; recommended to have a good driving record.

For up-to-date information:

School guidance office

Ontario Sewer and Watermain Construction Association

Ontario General Contractors Association

Council of Ontario Construction Associations

International Union of Operating Engineers Local 793

Equipment Operator

Estimator

Job Title: Estimator

Job Description:

At pre-construction phase of a project, carries out a wide range of duties including contract proposal estimates on labour, materials and equipment, visualizing overall projects and providing solutions to achieve most economical method of construction. Assembles bids and meets bid closure deadlines.

Education:

- Various industry-specific training vehicles including Canadian Institute of Quantity Surveyors Syllabus Program, Engineering Degree, Architectural/Engineering/Construction Technology or Technician Diploma
- Gold Seal Certification Program at Canadian Construction Association with prior industry experience

For up-to-date information:

School guidance office
Ontario Institute of Quantity Surveyors
Canadian Construction Association
Ontario General Contractors Association
Construction Specifications Canada
Council of Ontario Construction Associations



Fence Installer

Job Title: Fence Installer

Job Description:

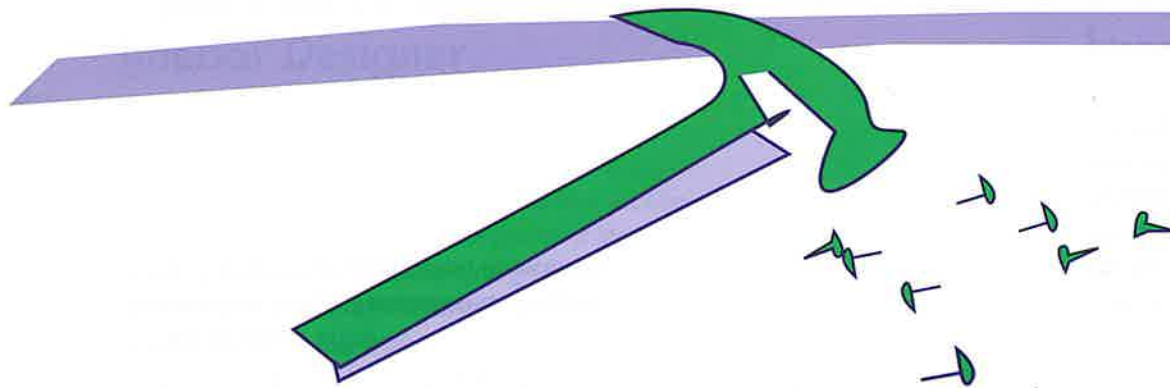
Installs and repairs all types of fence systems including security, privacy, ornamental, noise attenuation barrier, guide rail etc. These systems include the following materials; wire, wood, metal, rigid vinyl and concrete. The above systems are installed in residential and commercial / industrial / institutional applications. A fence installer reads blueprints, survey plans and specifications to determine materials required and installation procedures. Assembles and installs gates including swing, slide and cantilever, which may include access control equipment.

Education:

- High school completion preferred
- Minimum age 16
- This is a non-regulated occupation

For up-to-date information:

School guidance office
Canadian Fence Industry Association
Council of Ontario Construction Associations



Job Title:
Floor Covering Installer

Job Description:

Installs carpeting, wood flooring, linoleum, vinyl and other resilient floor coverings in residential, commercial, industrial and institutional buildings. May also involve refinishing and resurfacing existing materials, especially wood.

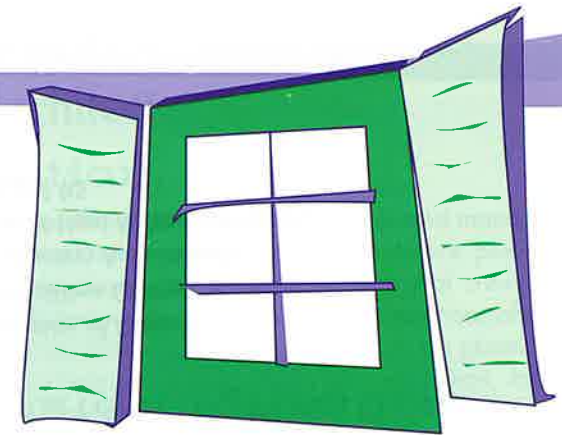
Education:

- High school completion is preferred
- Apprenticeship of 1 to 3 years or over 3 years experience in the trade
- This is a non-regulated occupation.

For up-to-date information:

School guidance office
Resilient Flooring Contractors Association of Ontario
Council of Ontario Construction Associations
Carpenters District Council of Ontario

Floor Covering
Installer



Job Title:
Glazier & Metal Mechanic

Job Description:

Cuts, fits and installs a variety of glazing materials in wooden and metal frames for a variety of purposes, including glass doors, windows, mirrors, storefronts, display cases, skylights and curtain walls, using putty, moulding, rubber, lead and all types of mastics. Uses design drawings and installation diagrams.

Education:

- Minimum age of 16
- Minimum of Grade 12 graduation
- Apprenticeship is 4 years
- This is a voluntary, regulated occupation

For up-to-date information:

School guidance office
Architectural Glass & Metal Contractors Association
Council of Ontario Construction Associations
International Union of Painters & Allied Trades

Glazier & Metal
Mechanic

Health and Safety Co-ordinator

Job Title:

Health and Safety Co-ordinator

Job Description:

Develops and administers health and safety programs. Conducts training and inspections, investigates accidents, works with contractors and workers to resolve health and safety problems. May administer parts of Workplace Safety and Insurance Board and / or insurance aspects of the project.

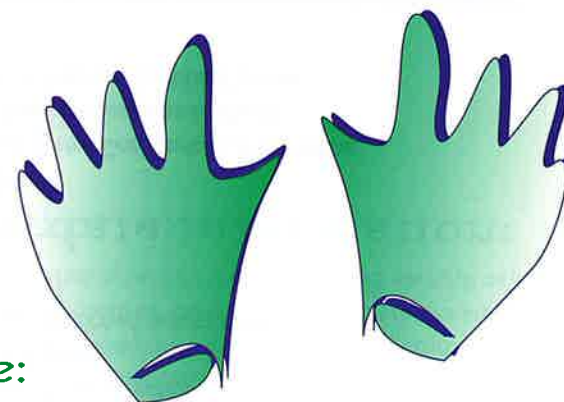
Education:

- General health and safety diploma courses through community colleges and Ryerson Polytechnic University
- Post-graduate courses aimed more at health and occupational hygiene through McMaster University, University of Toronto
- Additional informal construction specific programs through Construction Safety Association of Ontario

For up-to-date information:

School guidance office
Construction Safety Association of Ontario
Council of Ontario Construction Associations

Insulator



Job Title:

Insulator

Job Description:

Prepares and installs various types of mechanical insulation materials in commercial, and industrial buildings; also removes asbestos from various buildings. Works both indoors and outdoors and requires good physical condition.

Education:

- Grade 12
- Apprenticeship of 3–4 years at industry trade school plus on the job
- This is a non-regulated occupation

For up-to-date information:

School guidance office
Master Insulators' Association of Ontario
Metropolitan Toronto Demolition Contractors Inc.
Council of Ontario Construction Associations
International Association of Heat & Frost Insulators
& Asbestos Workers Local 95

Job Title: Interior Designer

Job Description:

Professional interior designers are "creative problem solvers", responsible for enhancing the function and the quality of life, health and safety in interior spaces. This is accomplished through a systematic approach where they balance and co-ordinate the needs and resources of the client to produce interior design that is both attractive as well as efficient and practical for the people who will be using the space.

In order to design spaces successfully, interior designers must be trained in the area of building construction, building materials, specification writing, technical drawing and business practices. In consultation with their clients and working in co-operation with other specialists, they analyze the problem(s), develop planning and detailed design solutions, organize, supervise and complete the installation.

Education:

- 4 year Interior Design program at Ryerson Polytechnic University
- or
- 2 year Certificate program and 3 year Diploma courses at most community colleges

For up-to-date information:

School guidance office
Association of Registered Interior Designers of Ontario
Council of Ontario Construction Associations

Interior Designer

Job Title: Landscape Architect

Job Description:

A landscape architect is a professional who designs, plans and manages the land. Applying both art and science, landscape architects provide consulting services, prepare plans, and facilitate projects that create a balance between the needs and wants of people and the limitations of the environment. Areas of specialization include landscape design, site planning, urban design, regional landscape planning, parks and recreation, land development planning, ecological planning and design including bio-engineering, heritage conservation, landscape reclamation and restoration, social / behavioural aspects of landscape design for special user needs.

Education:

A degree in Landscape Architecture from an accredited university (a Bachelor or Masters degree from the University of Guelph or the University of Toronto) or a Bachelor of Technology degree or a Landscape Architecture diploma in Landscape Architecture from Ryerson Polytechnic University.

Comments:

The Ontario Association of Landscape Architects (OALA) is a self-regulatory body created by legislation in the Province of Ontario to oversee the profession of landscape architecture and to provide certification to landscape architects practicing in the province. The legislation mandates the Association to establish and maintain standards of minimum competency in the knowledge, skills and abilities of its full members. Eligibility of full membership applicants is based on an assessment of relevant **education, experience** and **examination**. Landscape architecture is NOT a trade but rather a profession. Landscape Architects receive consulting fees or salaries NOT wages.

For up-to-date information:

School guidance office
Ontario Association of Landscape Architects
Council of Ontario Construction Associations

Landscape Architect



Painter and Decorator

Job Title:

Painter and Decorator

Commercial/Industrial Sandblaster

Job Description:

Applies paint and other organic and inorganic coatings to the interior and exterior of commercial, industrial and residential buildings; all types of sandblasting; applies various water and air barrier seals; applies wallcoverings to walls and ceilings. Other activities include preparation of surfaces, smoothing of finished surfaces and determining quantity of materials required. Applies metallic and other coatings to industrial surfaces.

Education:

- Minimum age 16
- High school completion is preferred
- Apprenticeship (2 to 3 years) or over 3 years experience in the trade
- Red Seal certification is available
- This is a voluntary, regulated occupation

For up-to-date information:

School guidance office

Ontario Painting Contractors Association

Council of Ontario Construction Associations

International Union of Painters & Allied Trades

Plumber

Job Title:

Plumber

Job Description:

Installs and maintains pipes and fittings for the flow of water, gasses and other fluids in all types of domestic and industrial structures; installs and repairs septic systems, plumbing fixtures, combustible fuel systems, above and below-ground potable water systems, above-ground sanitation, storm and waste systems, pumps and water treatment systems, fire protection systems and hot water heating systems.

Education:

- Minimum age 16
- High school graduation preferred
- Apprenticeship of 4 to 5 years
- Red seal certification is available
- This is a compulsory, regulated occupation

For up-to-date information:

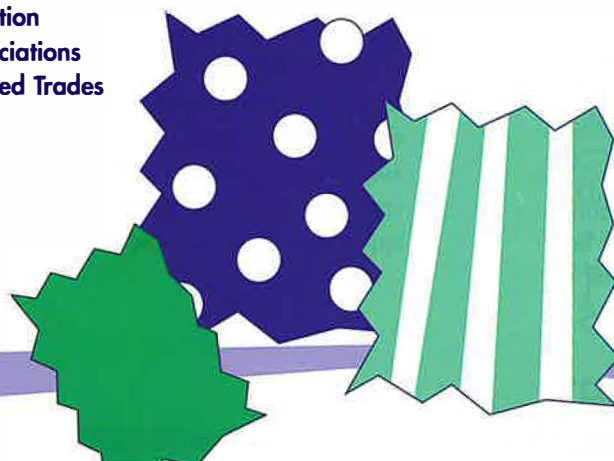
School guidance office

Mechanical Contractors Association of Ontario

Metropolitan Toronto Plumbing & Heating Contractors Association

Council of Ontario Construction Associations

Ontario Pipe Trades Council



Job Title: Power/Construction Lineworker

Job Description:

Power lineworker

Operates, maintains and services power lines used to conduct electricity from generating plants to consumers, and constructs or assembles a system of power lines used to conduct electricity from generating plants to consumers. Employment is often with utility companies or line/utility contractors.

Construction lineworker

Constructs or assembles a system of power lines used to conduct electricity from generating plants to consumers. Employment is often within the construction industry.

Education:

- Minimum age 18
- High school graduation preferred
- Apprenticeship of 3 1/2 years for Construction Lineworker and 4 years for Power Lineworker
- These are voluntary, regulated occupations

For up-to-date information:

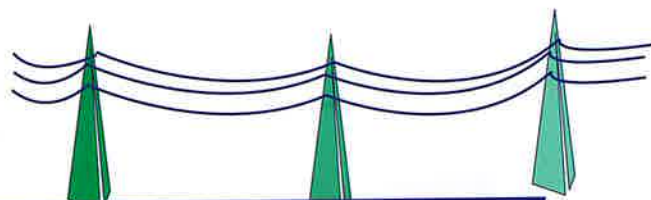
School guidance office

Electrical Contractors Association of Ontario

Electrical - Utility Safety Association

Municipal Electric Association

Council of Ontario Construction Associations



Power/Construction
Lineworker

Job Title: Professional Quantity Surveyor

Job Description:

Prepares economic feasibility studies, gives advice on construction cost planning and prepares tender documents, specifications, and construction contracts. Also checks and analyzes tenders, manages and coordinates projects, prepares process schedules and sets up and maintains cost control systems, conducts arbitrations in contract disputes and acts as an expert witness. Works with architects, engineers, planners and government agencies; works as consultant, estimator or manager in construction and development firms.

Education:

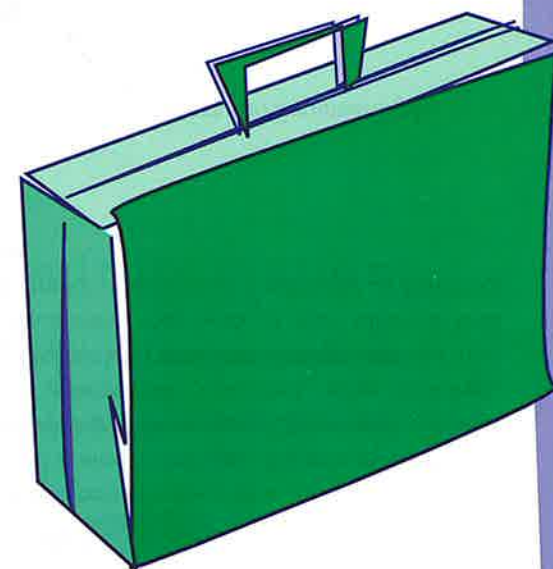
Must be member of Canadian Institute of Quantity Surveyors by completing Institute's Educational Program, Professional examinations and Test of Professional Experience.

For up-to-date information:

School guidance office

Ontario Institute of Quantity Surveyors

Council of Ontario Construction Associations



Professional
Quantity Surveyor

Professional Renovation Contractor

Job Title:

Professional Renovation Contractor

Job Description:

Acts as General Contractor for clients (home owners, property managers, commercial store owners, architects, etc.) wishing to substantially upgrade or remodel their building. Professional renovation contractors are skilled and experienced in project management, building science, design, business management, sales and marketing.

Education:

- Building or other construction experience is highly recommended
- Renovation or construction courses offered through various community colleges
- Ryerson Polytechnic University offers a four year degree program in Architectural Science

Comments:

Extremely competitive and unique field geared towards customer satisfaction. Most jobs are highly price-sensitive and require sound technical knowledge and good problem-solving abilities. Wage rates vary drastically depending on scale of work and is primarily non-union.

For up-to-date information:

School guidance office
Ontario Home Builders' Association-Renovators' Council
Council of Ontario Construction Associations

Project Co-ordinator

Job Title:

Project Co-ordinator

Job Description:

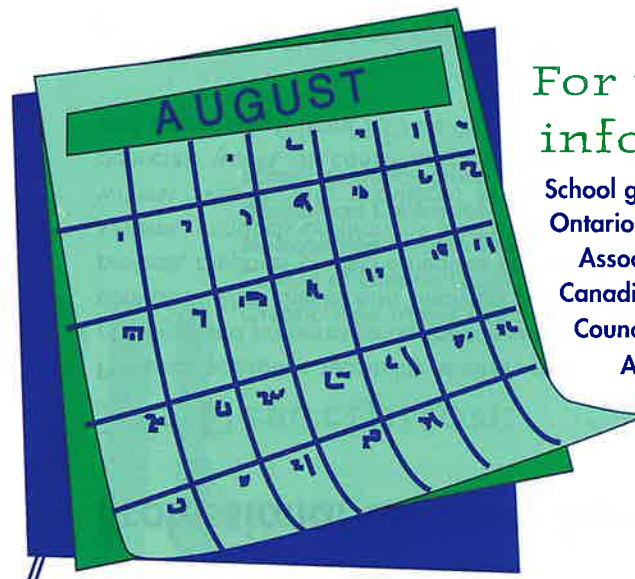
Primarily responsible for the efficient administration of a contract, particularly in the areas of subcontracts and contract changes. Reports to the Project Manager, Superintendent or General Manager. Duties will include: preparation and processing of subcontract documents, shop drawings, change orders, receiving and checking contract change notices and requisitions for material and equipment. May work at head office or field office of either a General Contractor, Mechanical Contractor or Electrical Contractor.

Education:

Various including Engineering Degree, Architectural/Engineering/Construction Technology or Technician Diploma.

For up-to-date information:

School guidance office
Ontario General Contractors
Association
Canadian Construction Association
Council of Ontario Construction
Associations





Job Title: **Project Manager**

Job Description:

Is responsible for overall management and administrative responsibility for larger jobs. All on-site staff, including superintendents, report to this person who may work out of the office or in a field office. Duties include those described under Project Co-ordinator. Will work in discipline of either General Contracting, Mechanical Contracting or Electrical Contracting.

Education:

- Various including Engineering Degree, Architectural/Engineering/Construction Technology or Technician Diploma from university/college
- Ryerson Polytechnic University offers Project Management programs
- Also available is Gold Seal Certification Program from Canadian Construction Association with prior industry experience

For up-to-date information:

School guidance office
Ontario General Contractors Association
Canadian Construction Association
Council of Ontario Construction Associations

Project Manager

Job Title: **Refrigeration/Air Conditioning Mechanic**

Job Description:

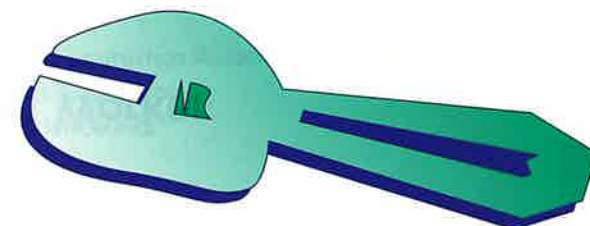
Installs, assembles and repairs components of large and small refrigeration and air-conditioning systems in residential, commercial and industrial settings; assembles or connects required refrigeration pipes.

Education:

- Minimum age 16
- High school graduation preferred
- Apprenticeship of 4 1/2 – 5 years
- This is a compulsory, regulated occupation

For up-to-date information:

School guidance office
Ontario Refrigeration & Air Conditioning Contractors Association
Council of Ontario Construction Associations
UA Local 787/ ORAC Joint Training & Apprenticeship Committee



**Refrigeration/Air
Conditioning Mechanic**

Registered Building Technician/Technologist

19

Reinforcing Rod Worker

Job Title:

Registered Building Technician / Technologist

Job Description:

Registered Building Technician

Prepares accurate working or detailed drawings for construction, engineering, architectural companies, and other purposes. Works from notes, sketches, calculations, specification sheets and other data.

Registered Building Technologist

Works with architects, engineers or corporations and may be self employed in the construction process and administration. May also work with government agencies in the areas of administration, code enforcement or facilities management.

Education:

Registered Building Technician

- High school completion is required
- College diploma or several years related experience plus college
- Accreditation through the Association of Architectural Technologists of Ontario

Registered Building Technologist

- 3 years community college diploma plus accreditation through the Association of Architectural Technologists of Ontario
- Community colleges of Building Construction related courses

For up-to-date information:

School guidance office

Association of Architectural Technologists of Ontario
Council of Ontario Construction Associations

Job Title:

Reinforcing Rod Worker

Job Description:

Prepares, lays out and installs reinforcing steel bars (rebar), in concrete structures, foundations or blocks for strengthening; places rebar and secures with steel wire; places stressing post-tensioning cable; uses an oxyacetylene torch or welding equipment or electric cut off saws; guides the loading/unloading of steel bundles off trucks.

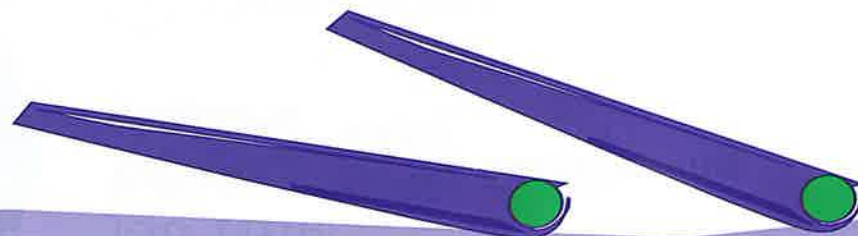
Education:

- Minimum Grade 10
- Apprenticeship of 4,000 hours to be classified as journey person
- This is a regulated occupation

For up-to-date information:

School guidance office

Reinforcing Steel Institute of Ontario
Council of Ontario Construction Associations
Ironworkers Local 721
Ontario Ironworkers District Council





Job Title: **Roofer**

Job Description:

Installs, replaces, repairs and maintains all types of roofs. Industrial / commercial roofing is generally low-sloped utilizing hot asphalt or rubber and plastic sheet materials. Residential roofing is generally steep-sloped using asphalt, wood, slate or tile shingles.

Education:

- Minimum grade 10
- Apprenticeship program is available (three years)
- Red Seal certification is available
- This is a non-regulated occupation

For up-to-date information:

School guidance office
Ontario Industrial Roofing Contractors Association
Council of Ontario Construction Associations
Ontario Sheet Metal Workers' & Roofers' Conference

Job Title: **Sewer and Watermain Pipelayer**

Job Description:

Instructs and guides equipment operators to prepare trench grades for pipe installation. Handles and installs pipe to proper alignment and grade. Spreads and compacts granular materials to properly bed and protect pipes.

Education:

- Grade 10 math is required
- Training may occur with employer or through some local unions

Comments:

Must be able to understand and comply with imposed regulations. Must be safety conscious. This is a physically demanding job. Recommended to work as Pipe Helper initially to gain experience.

For up-to-date information:

School guidance office
Ontario Sewer and Watermain Construction Association
Council of Ontario Construction Associations
LIUNA, Ontario Provincial District Council

Sheet Metal Worker

Job Title: Sheet Metal Worker

Job Description:

Designs, manufactures, installs and repairs sheet metal parts or products to specified dimensions for industrial, commercial, institutional and residential construction sites; builds as well as installs ductwork for air handling systems; installs sidings on buildings, drafts patterns, measuring, forging, cutting, riveting, shearing, welding and soldering and balancing items made out of galvanized sheet metal, copper, nickel alloy, stainless steel, aluminum, plastic and ceramics.

Education:

- Minimum age 18
- High school completion is preferred
- Apprenticeship of 4–5 years
- Red Seal certification is available
- This is a compulsory, regulated occupation

For up-to-date information:

School guidance office
Ontario Sheet Metal & Air Handling Group
Council of Ontario Construction Associations
Ontario Sheet Metal Workers' & Roofers' Conference

General Labourer

Job Title: Skilled Labourer

Job Description:

Craft Labourer works in every sector of the industry, including residential, industrial, commercial, institutional, civil engineering, utilities, including pipeline, landscaping and tunneling. Craft Labourers frame houses, are engaged in all aspects of masonry, including brick and block installation, drains and concrete installation, foundation and basement, including insulation thereof, installation of plumbing on low rise housing, roof shingles and siding and interior trim finish, including but not restricted to doors and windows. Is engaged in every aspect of bridge and overpass erection, paving of roads and the operation of all pertinent machinery on paving and resurfacing in asphalt or concrete. Craft Labourer works on each phase of sewer and watermain installation, including tunnel boring, trench and open cut. Operates all pertinent equipment, tunnel boring machines, locomotives, scoop trams and mucking machines. Is engaged in pre-cast erection, including post-tensioning and pre-stressing of concrete structures, cement finishing, waterproofing, concrete cutting, coring and placing, removing of hazardous materials, including asbestos, pile driving and demolition work. Performs rock drilling and blasting on all construction projects.

Education:

- Training varies according to particular skill; may be on the job with the employer or at Labourers' Union Training Centres.

For up-to-date information:

School guidance office
Labourers International Union of North America
Ontario General Contractors Association
Council of Ontario Construction Associations
Ontario Sewer & Watermain Construction Association

Job Title: Specifier



Job Description:

Prepares tendering and contract documents, writes technical specifications, reviews drawing construction details as they relate to specifications and advises on material selection; will attend all site review meetings and wrap-up meetings to collect information and record all decisions. Will usually be an employee of a design consultant. A Specification Consultant performs similar tasks but will usually be an independent advisor to design consultant whose role may include providing advice and counsel to consultants and owners.

Education:

- May be architects, engineers, architectural or engineering technologists or graduates from an accepted specification writing program
- Certification (RSW) is through courses offered by Construction Specifications Canada
- Specifiers complete further study and practical experience to specialize as Registered Specifications Writer after completing the above stated certification.

For up-to-date information:

School guidance office
Construction Specifications Canada
Council of Ontario Construction Associations

Specifier

Job Title: Sprinkler and Fire Protection Installer

Job Description:

A Sprinkler Fitter is a Tradesperson who fabricates, installs, tests, maintains and inspects a wide selection of fire protection systems, such as underground water supply, standpipes and hose rack systems, fire hydrants, wet and dry pipe systems, low and high pressure CO2 systems, clean agent fire suppression systems and foam systems.

The tasks include, installing pipes and fittings, valves and apparatus, actuation and detection devices and fire pumps, in all types of buildings including airports, airplane hangars, oil refineries, chemical plants, offices, schools and dwellings.

Education:

- Minimum age 16
- Grade 12 math and english or equivalent
- 9,000 hour apprenticeship (infield training and in-class training)
- Red Seal Interprovincial License available
- This is a Certified Trade Regulated under the Trades Qualification and Apprenticeship Act.

For up-to-date information:

School guidance office
Canadian Automatic Sprinkler Association
Council of Ontario Construction Associations
UA Local 853 Sprinkler Fitters

Sprinkler and Fire
Protection Installer

Steam Fitter

Job Title: Steam Fitter

Job Description:

Lays out, assembles, installs, repairs and maintains piping for high and low pressure steam, hot water heating systems, cooling systems, systems that convey gas and tubing for pneumatic and air-handling systems in large residential complexes, industry, nuclear plants and commercial and office buildings; reads and understands designs, drawings, manufacturers' literature and installation diagrams.

Education:

- Minimum age 16
- High school completion is preferred
- Apprenticeship of 4 to 5 years
- Trade certification as steam fitter/pipe fitter or sprinkler system installer
- Red Seal certification is available
- This is a compulsory, regulated occupation

For up-to-date information:

School guidance office
Mechanical Contractors Association of Ontario
Metropolitan Toronto Plumbing & Heating Contractors Association
Council of Ontario Construction Associations
Ontario Pipe Trades Council

Structural Steel Erector/Ironworker

Job Title: Structural Steel Erector/Ironworker

Job Description:

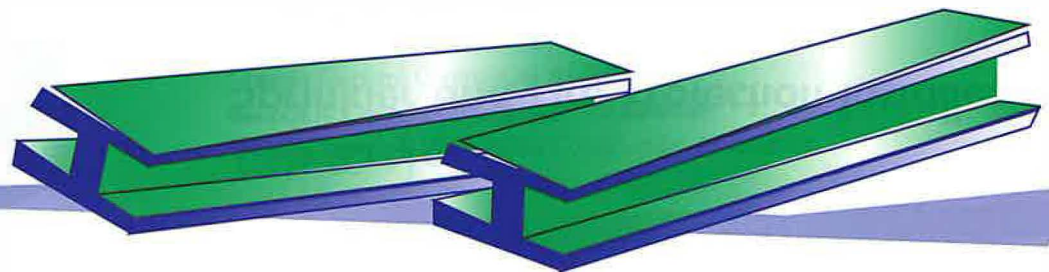
Erects and installs structural steel in a wide variety of construction and industrial settings; bolts and welds steel girders together; moves materials to the top of a structure and manoeuvres them into position; calculates loads and selects and attaches correct slings; builds frames and supports for heavy industrial equipment and builds industrial conveyor systems.

Education:

- Minimum age 17
- High school graduation preferred
- Apprenticeship of 3 years
- This is a voluntary, regulated occupation

For up-to-date information:

School guidance office
Canadian Institute of Steel Construction
Council of Ontario Construction Associations
Ironworkers Local 721
Ontario Ironworkers District Council
Ontario Erectors Association



Job Title: Superintendent

Job Description:

Responsible for directing the work of the forepersons or tradespersons who represent different trades. A background in a particular trade is helpful, with a thorough knowledge of related tools, materials and procedures. Superintendents also act as Forepersons on smaller jobs, but generally they are concerned with more administrative or management duties such as planning, scheduling, cost control and procurement.

Education:

- Various; including Engineering degree, Architectural/Engineering/Construction Technology or Technician Diploma.
- Trade experience, such as Carpentry, as a basis for advancement for foremen, field engineer and superintendent.
- Ontario General Contractors Association, Education Program Courses
- Also available is Gold Seal Certification Program from Canadian Construction Association with prior industry experience

For up-to-date information:

School guidance office
Ontario General Contractors Association
Council of Ontario Construction Associations

Superintendent

Job Title: Surveyor

Job Description:

Determines natural and man-made features of the surface of the earth and the storage and representation of such features on a chart, map, plan or graphic representation. Cadastral or legal surveyor advises on, reports on, conducts or supervises the conducting of surveys to establish, locate, define or describe lines, boundaries or corners of parcels of land or land covered with water. Professional surveying also includes the branches of geodesy, photogrammetry and hydrography.

Education:

- University of Toronto, Erindale
(Only one in Ontario with heavy emphasis on law)
- 4 year program
- + 2 years articling
- + Oral/Written Exam

For up-to-date information:

School guidance office
Association of Ontario Land Surveyors
Council of Ontario Construction Associations

Surveyor

Surveyor Technician/ Technologist

Job Title:

Surveyor Technician/Technologist

Job Description:

Records measurements in the field; uncovers physical, historical and documentary evidence; drafts plans for the Ontario Land Surveyor to check and sign.

Education:

Note: Several Colleges may offer survey-related courses as part of another program (i.e.) Civil Engineering–Construction Engineering Option

- Algonquin College
- Fanshawe College
- Georgian College
- Loyalist College
- Northern College

Above offer a Survey Technician, 2 year program

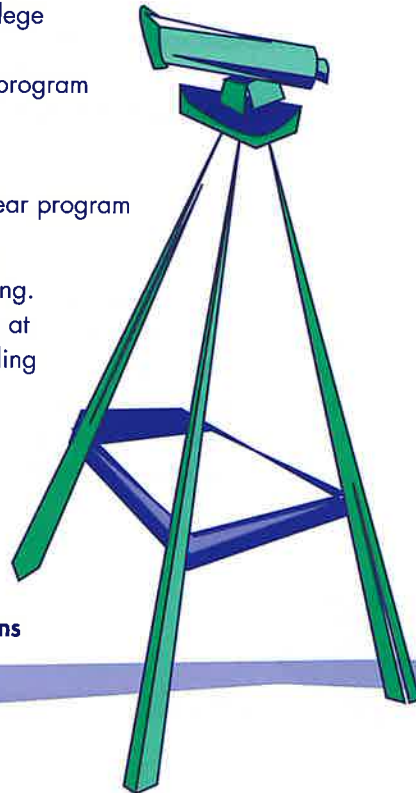
- Algonquin College
- Northern College

Above offer a Survey Technologist, 3–4 year program

- Ryerson Polytechnic University offers a 4 year degree in Geomatics Engineering. Graduates may take additional courses at University of Toronto to qualify for articling

For up-to-date information:

School guidance office
Association of Ontario Land Surveyors
Council of Ontario Construction Associations



Tile/Terrazzo/ Marble Setter

Job Title:

Tile/Terrazzo/Marble Setter

Job Description:

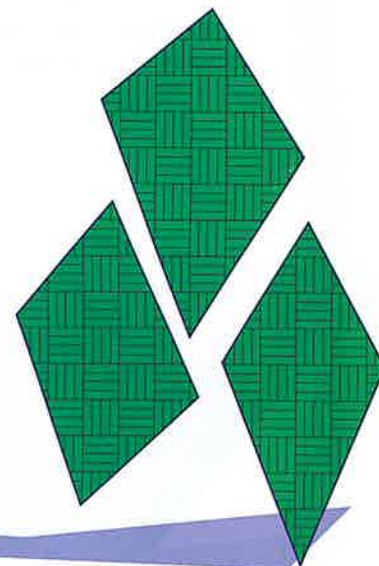
Prepares and installs various ceramic, marble, quarry, mosaic or terrazzo tiles on interior and exterior floors, walls, ceilings for residential, commercial, industrial, institutional or other types of buildings; prepares and applies bonding materials, designs or marks out designs on wall or floor surfaces, cuts and lays tiles and terrazzo.

Education:

- Minimum Grade 8 education is required
- Good reading and comprehension skills are a necessity
- Apprenticeship of 3 to 4 years experience in the trade plus industry courses in trade school
- This is a non-regulated occupation

For up-to-date information:

School guidance office
Council of Ontario Construction Associations
BAC-Canada
Ministry of Education and Training
Terrazzo Tile & Marble Guild of Ontario



Job Title:

Urban and Land Use Planners

Job Description:

Prepares plans for zoning, transportation, public utilities, community facilities, parks, housing and related services for cities, towns and rural areas. Also prepares and recommends plans for the provision of wildlife preserves, national and provincial parks, protection of watersheds and the prevention of soil erosion.

Develops plans and programs for the use of land and physical facilities in urban areas. Duties include preparing and presenting narrative and graphic program plans to municipal and industry authorities affecting land use, public utilities, community facilities, housing and transportation.

Education:

University degree in urban design, planning, geography, engineering or a related discipline; graduate degree in regional and urban planning, design and environmental planning, architectural engineering or a related discipline is usually required; association membership is usually required (Canadian Institute of Planners)

For up-to-date information:

School guidance office
Canadian Institute of Planners
Council of Ontario Construction Associations



Urban and Land
Use Planners

This chart shows various firm / companies
which would be involved in a typical medium-sized building project

PROJECT PARTICIPANTS

Building Owner

CONSULTANTS

- Architect
- Structural Engineer
- Mechanical Engineer
- Electrical Engineer
- Interior Designer

GENERAL CONTRACTOR

- **Subcontractors**
 - Excavation
 - Paving
 - Formwork
 - Masonry
 - Structural Steel
 - Millwork
 - Roofing
 - Windows & Doors
 - Drywall
 - Carpet
 - Ceramic Tile, Marble
 - Painting
 - Elevators
 - Plumbing
 - Heating & Ventilation
 - Temperature Controls
 - Fire Protection Systems
 - Electrical
 - Plus many other specialties
 - Material, equipment suppliers

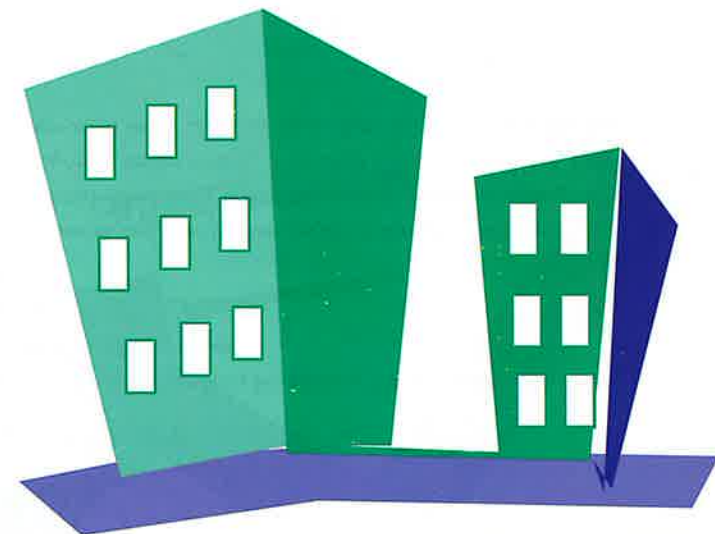
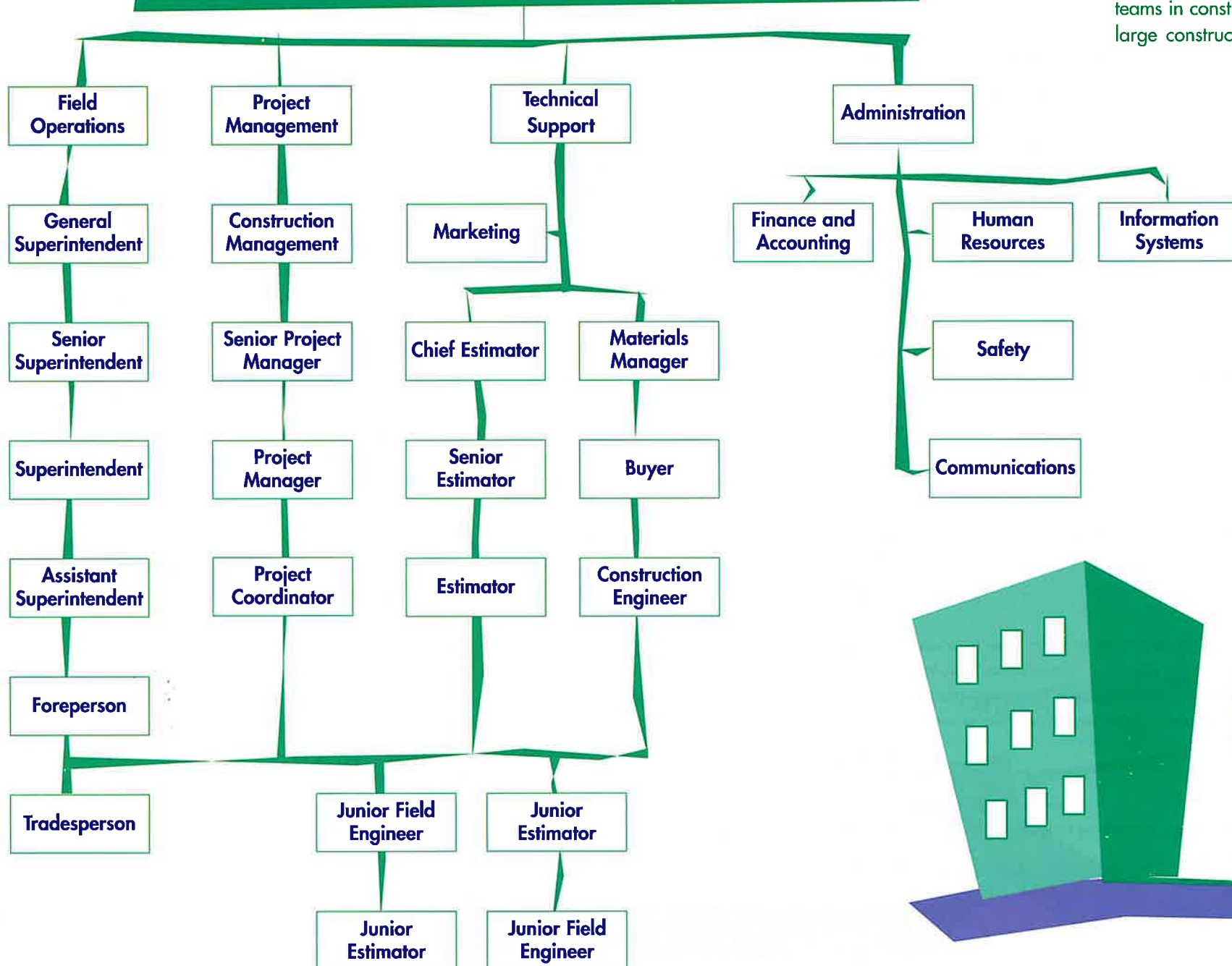
OTHER

- Municipal Building Permit Staff
- Materials Testing facilities
- Urban planners
- Roads, bridges
- Utilities - sewer, water, hydro



CONSTRUCTION COMPANY TEAM

* This is an example of one of the many different management teams in construction, for a large construction company.



Courtesy of PCL

Glossary of Terms

APPRENTICESHIP

The period of training required to achieve journeyperson status in a skilled occupation. Most apprenticeship programs consist of classroom instruction, usually at a community college, complemented by on-the-job experience. Delays in completing the necessary hours of on-the-job experience or classroom instruction will lengthen the estimated time to complete the apprenticeship program. While enrolled in a training program, apprentices earn a portion of the established journeyperson wage rate based on the level of study completed.

COMPULSORY OCCUPATION

A skilled trade practiced exclusively by holders of a Certificate of Qualification or by a registered apprentice. In Ontario, these trades include: electrician; hoisting engineer; plumbing, refrigeration and air conditioning mechanic; sheet metal worker; steamfitter.

CONSTRUCTION SECTORS

There are three main construction sectors. The first, ICI, refers to industrial, commercial and institutional projects. Heavy construction/engineering involves roads, sewers and bridges. Residential includes single family and multi-family dwellings. Within each sector, work may involve new construction and renovation.

FOREPERSON

A tradesperson who is paid a premium wage to assume a leadership role.

GOLD SEAL

This is a National Certification Program recognizing excellence in construction management. Individuals are judged on their education and experience and must pass a Gold Seal examination in one of three categories: Estimator, Superintendent or Project Manager. The Program is available through the Canadian Construction Association, Ontario General Contractors Association as well as many local associations.

JOURNEYPERSON

A tradesperson who has mastered specific skills after completing an apprenticeship program. Journeyperson status can also be attained after successfully completing an examination for a Certificate of Qualification.

NON-REGULATED OCCUPATION

Training for these occupations is conducted under a Schedule of Training which is individually tailored to meet the needs of specific employers.

NON-UNION

Non-unionized/open shop companies and their workers negotiate wages, hours and conditions of work and training on an individual basis. Many non-unionized workers undergo formal apprenticeship training programs, similar to ones undertaken by union employees. Even so, hourly wage rates in the non-union sector often are lower than union rates for comparable tasks.

RED SEAL

An inter-provincial certification program that facilitates tradesperson mobility between provinces.

REGULATED OCCUPATION

Trade membership can be voluntary or compulsory. Apprentices of regulated trades are expected to complete on-the-job and in-school training programs which are administered through the Ministry of Training, Colleges & Universities. Upon completing their training, apprentices are awarded a Certificate of Qualification which indicates that the holder has reached a designated level of expertise. This certificate may be required by some employers as a condition of employment.

UNION

Unionized work is defined by the terms of a "collective agreement" between the union and management. Provisions in a collective agreement include but are not limited to: scope of work, wages, hours, the number and pay of apprentices and lay off and hiring procedures. Most unions operate hiring hall or job placement services.

VOLUNTARY OCCUPATION

A skilled trade that does not require a Certificate of Qualification.

Directory of Associations

Acoustical Association of Ontario

540 Vaughan Mills Road
Woodbridge, Ontario L4H 1G8
Attention: Mr. Joe De Caria
Phone: (905) 738-1733
Fax: (905) 850-3433

Architectural Glass & Metal Contractors Association

1020 Brock Rd., Suite 2003
Pickering, On L1W 3H2
Attention: Mr. Barrie Eon
Phone: (905) 420-7272
Fax: (905) 420-7288

Architectural Woodwork Manufacturers Association of Canada, Ontario Chapter

70 Leek Cres.
Richmond Hill, Ontario L4B 1H1
Attention: Ms. Mary Thorburn
Phone: (416) 499-4000
Fax: (416) 499-8752
E-Mail: mthorburn@tcanetworks.com

Association of Architectural Technologists of Ontario

150 Consumers Rd., Ste. 407
Willowdale, On M2J 1P9
Attention: Mr. David Hornblow
Phone: (416) 493-6758
1-800-563-2286
Fax: (416) 493-9245
E-Mail: aato@sympatico.ca
Website: www.aato.on.ca

Association of Millwrighting Contractors of Ontario Inc.

370 York Blvd., Suite 105
Hamilton, Ontario L8R 3L1
Attention: Mr. Fred Reaume
Phone: (905) 525-0171
Fax: (905) 525-5939

Association of Ontario Land Surveyors

1043 McNicoll Avenue
Scarborough, On M1W 3W6
Attention: Mr. Carl Rooth
Phone: (416) 491-9020
Fax: (416) 491-2576

Association of Registered Interior Designers of Ontario

717 Church Street
Toronto, On M4W 2M5
Attention: Ms. Lori Theoret
Phone: (416) 921-2127
1-800-334-1180
Fax: (416) 921-3660
E-Mail: theoret@arido.on.ca
Website: www.arido.on.ca

Boilermaker Contractors Association

PO Box 1190, 10 HWY 20 E.
Fonthill, Ontario L0S 1E0
Phone: (905) 892-2244
Fax: (905) 892-2320
Attention: John Schel

Brick & Allied Craft Union of Canada

4800 Dundas St. West, Suite 201
Toronto, Ontario M9A 1B1
Phone: (416) 239-7374
Fax: (416) 236-0200
Attention: Jerry Coelho

Canada Masonry Centre

360 Superior Blvd.
Mississauga, Ontario L5T 2N7
Phone: (905) 795-0770
Fax: (905) 564-5744
Attention: Mr. Don Attfield
Website: www.omca.org

Canadian Automatic Sprinkler Association

302-335 Renfrew Dr.
Unionville, Ontario L3R 9S9
Attention: Larry Fronczak
Phone: (905) 477-2270
Fax: (905) 277-3611
Website: www.casa.fireprinkler.org

Canadian Construction Association

75 Albert St., Suite 400
Ottawa, On K1P 5E7
Phone: (613) 236-9455
Fax: (613) 236-9526
E-Mail: cca@cca-acc.com
Website: www.cca-acc.com

Canadian Fence Industry Association

c/o 811 Progress Ave.
Scarborough, Ontario
M1H 2X4
Attention: Ms. Catherine Hofstetter
Phone: (416) 431-5556
Fax: (416) 431-2595
E-Mail: cfia@glen-net.ca
Website: www.canadafence.org

Canadian Institute of Planners

116 Albert St., Suite 801
Ottawa, On K1P 5G3
Attention: Mrs. Christine Helm
Phone: (613) 237-7526
Fax: (613) 237-7045

Canadian Institute of Steel Construction

201 Consumers Rd., Ste. 300
Willowdale, On M2J 4G8
Attention: Mr. Hugh A. Krentz
Phone: (416) 491-4552
Fax: (416) 491-6461
E-Mail: cisc_mike_gilmor@compuserve.com
Website: www.cisc-icca.ca

Carpenters' District Council of Ontario

103-5780 Timberlea Blvd.
Mississauga, Ontario L4W 4W8
Attention: Mr. Vic A. Bodnar
Phone: (905) 238-3063
1-800-665-6837
Fax: (905) 238-3012
Website: www.carpentersdc.com

Carpenters Local 27

64 Signet Dr.
Weston, On M9L 1T1
Attention: Ms. Maggie Yen
Phone: (416) 749-7440 x236
Fax: (416) 745-1884
E-Mail: myen@corc.com

Concrete Floor Contractors Association of Ontario

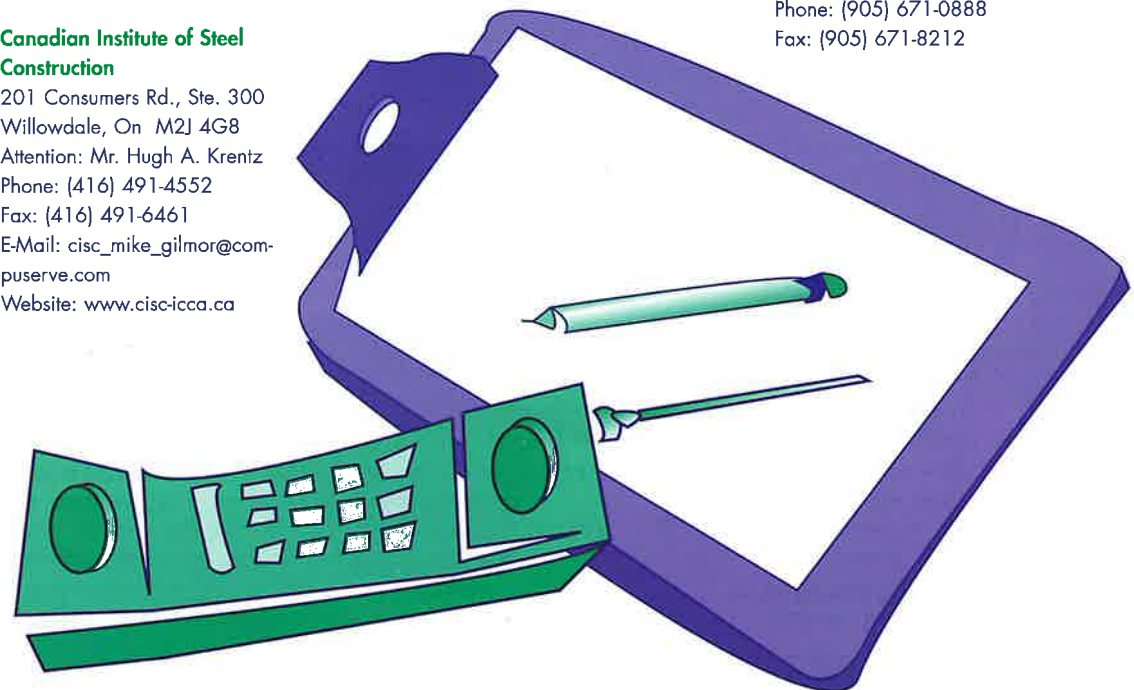
70 Leek Crescent
Richmond Hill, On L4B 1H1
Attention: Ms. Mary Thorburn
Phone: (416) 499-4000
Fax: (416) 499-8752
E-Mail: mthorburn@tcanetworks.com
Website: www.cfcao.com

Concrete Forming Association of Ontario

70 Leek Crescent
Richmond Hill, On L4B 1H1
Attention: Ms. Mary Thorburn
Phone: (416) 499-4000
Fax: (416) 499-8752
E-Mail: mthorburn@tcanetworks.com

Construction Labor Relations Association of Ontario

6299 Airport Rd., Suite 703
Mississauga, Ontario L4V 1N3
Attention: Joe Keyes
Phone: (905) 671-0888
Fax: (905) 671-8212



Construction Safety Association of Ontario

21 Voyager Court South
Etobicoke, On M9W 5M7
Attention: Mr. George Park
Phone: (416) 674-2726
1-800-781-2726
Fax: (416) 674-8866

Construction Specifications Canada

100 Lombard St., Suite 200
Toronto, On M5C 1M3
Attention: Mr. Nic Franjic
Phone: (416) 777-2198
Fax: (416) 777-2197
E-Mail: csc-dec@netcom.ca
Website: www.csc-dec.ca

Consulting Engineers of Ontario

10 Four Seasons Place, #405
Toronto, On M9B 6H7
Attention: Mr. Don Ingram, P.Eng.
Phone: (416) 620-1400
Fax: (416) 620-5803
E-Mail: staff@ceo.on.ca
Website: www.ceo.on.ca

Council of Ontario Construction Associations

920 Yonge Street, Ste. 602
Toronto, On M4W 3C7
Attention: Mr. David Surplis
Telephone: (416) 968-7200
Fax: (416) 968-0362
Website: www.coca.on.ca

Crane & Hoist Association of Ontario

215 Milvan Drive
Weston, On M9L 2A3
Attention: Mr. Ricky Rigundo
Phone: (416) 745-9400
Fax: (416) 745-2310

Crane Rental Association of Ontario

70 Leek Cres.
Richmond Hill, Ontario L4B 1H1
Attention: Mrs. Evelyn Kilcullen
Phone: (416) 499-4000
Fax: (416) 499-8752

Electrical & Utility Safety Association

220 Traders Blvd. East
Mississauga, Ontario L4Z 1W7
Attention: Mr. Bruce Clements
Phone: (905) 890-1011
Fax: (905) 890-9249

Electrical Contractors Association of Ontario

170 Attwell Drive, Suite 460
Toronto, On M9W 5Z5
Attention: Mr. Eryl Roberts
Phone: (416) 675-3226
Fax: (416) 675-7736
E-Mail: eroberts@ecao.org
Website: www.ecao.org

Elevator Constructors Local 50

421 Nugget Ave., Unit 6
Scabourough, Ontario M1S 4L8
Phone: (416) 754-2424
Fax: (416) 754-3183
Attention: Rick Baxter

IBEW Construction Council of Ontario

61 International Blvd. Suite 209
Rexdale, Ontario M9W 6K4
Phone: (416) 674-6940
Fax: (416) 674-9541
Contact: Bob Hill
Website: www.ibewcco.org

International Union of Painters & Allied Trades

130 Toro Rd.
Toronto, Ontario M3J 2A9
Attn: Bill Nicholls
Phone: (416) 630-9604
Fax: (416) 630-3400
Website: www.on.ibpat.ca

Interior Systems Contractors Association of Ontario

675 Garyray Drive
Weston, Ontario M9L 1R2
Attention: Mr. Hugh Laird
Phone: (416) 740-5411
Fax: (416) 746-1522
Website: www.ifstc.com
www3.isca.ca
www.trainingiti.com

International Brotherhood of Boilermakers, Local 128

7 Queen Elizabeth Blvd.
Toronto, Ontario M8Z 1L9
Phone: (416) 251-6585
Fax: (416) 251-8230
Attention: Ron Groulx
Website: www.ibblocal128.org

International Union of Operating Engineers Local 793

30 Commercial Rd.
Toronto, Ontario M4G 1Z4
Phone: (416) 425-8710
Fax: (416) 425-7710
Attention: Joe Dowdall
Website: www.iuoeocal793.org

Int'l Association of Heat & Frost Insulators and Asbestos Workers Local 95

60 Ironside Cres., Unit 1
Scabourough, Ontario M1X 1G4
Phone: (416) 609-3310
Fax: (416) 609-3314
Contact: Joe de Wit

Labourers International Union of North America Ontario Provincial District Council

1263 Wilson Ave., Ste. 301
North York, On M3M 3G2
Attention: Mr. Thomas P. Connolly
Phone: (416) 240-7254
Fax: (416) 240-7260

Master Insulators' Association of Ontario

1100 Central Parkway West, Unit 16
Mississauga, On L5C 4E5
Attention: Mr. Peter Woloszanskyj
Phone: (905) 279-6426
Fax: (905) 279-6422
E-Mail: mia.peterwolos@myna.com
Website: www.miao.org

Mechanical Contractors Association of Ontario

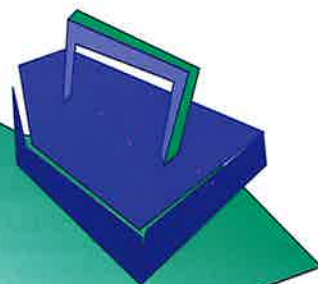
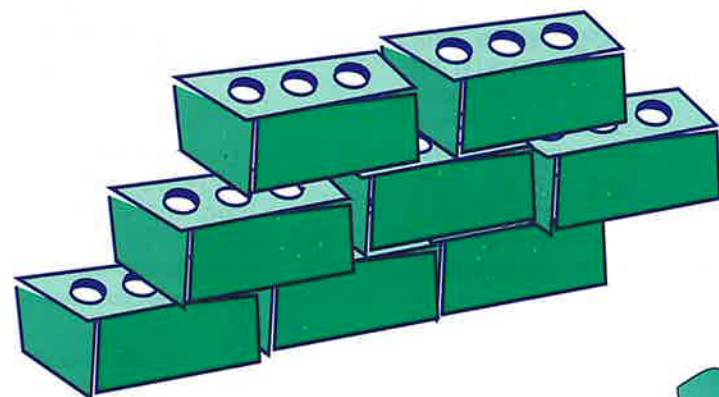
7 Director Court, Unit 103
Woodbridge, On L4L 7E8
Phone: (905) 856-0342
Fax: (905) 856-0385
E-Mail: mcao@netcom.ca
Website: www.mcao.org

Metropolitan Plumbing & Heating Contractors Association

70 Leek Crescent
Richmond Hill, On L4B 1H1
Attention: Ms. Mary Thorburn
Phone: (416) 499-4000
Fax: (416) 499-8752
E-Mail: mthorburn@tcnetworks.com

Metropolitan Toronto Demolition Contractors Inc.

16 Melanie Drive
Brampton, On L6T 4K9
Attention: Mr. Ira Greenspoon
Phone: (905) 458-1005
Fax: (905) 458-4149



Millwright Regional Council of Ontario

79 Sunrise Ave.
Toronto, Ontario M4A 1A9
Phone: (416) 757-4996
Fax: (416) 57-0183
Contact: Ron Thibodeau
Website:
www.millwrightsontario.com

Municipal Electric Association

20 Eglinton Ave. West, Suite 500
Toronto, Ontario M5R 1K8
Phone: (416) 483-7739
Fax: (416) 483-9039

National Association of Women in Construction

811 Progress Ave.
Scarborough, Ontario M1H 2X4
Attention: Ms. Catherine Hofstetter
Phone: (416) 431-5556
Fax: (416) 431-2595
E-Mail: mcfence@istar.ca

Ontario Acoustical & Drywall District Council

64 Signet Dr.
Weston, Ontario M9L 1T1
Attention: Colin Weller
Phone: (416) 749-0675
Fax: (416) 749-6040
Website: www.carpentersdc.com

Ontario Association of Architects

111 Moatfield Drive
Don Mills, On M3B 3L6
Attention: Ms. Marshall Wueben
Phone: (416) 449-6898
Fax: (416) 449-5756

Ontario Association of Certified Engineering Technicians & Technologists

10 Four Seasons Place, Ste. 404
Etobicoke, On M9B 6H7
Attention: Mr. Bruce Wells
Phone: (416) 621-9621
Fax: (416) 621-8694

Ontario Association of Landscape Architects

2842 Bloor St. W. #101
Toronto, Ontario M8X 1B1
Attention: Mr. Arthur Timms
Phone: (416) 231-4181
Fax: (416) 231-2679
E-Mail: oala@interlog.com
Website: www.oala.on.ca

Ontario Construction Secretariat

940 The Eastmall, Suite 202
Etobicoke, Ontario M9B 6J7
Phone: (416) 620-5210
Fax: (416) 620-5310
E-Mail: info@iconstruction.com
Website: www.iconstruction.com

Ontario Formwork Association

951 Wilson Ave., Unit #7
Downsview, Ontario M3K 1Z7
Attention: Mr. Ernesto Arduini
Phone: (416) 630-7912
Fax: (416) 630-7181

Ontario General Contractors Association

6299 Airport Road, Suite 703
Mississauga, On L4V 1N3
Attention: Mr. Don Cameron
Phone: (905) 671-3969
Fax: (905) 671-8212
E-Mail: ogca@sympatico.ca

Ontario Home Builders Association Renovators Council

20 Upjohn Road
North York, On M3B 2V9
Attention: Mr. Noel Manglinong
Phone: (416) 443-1545
Fax: (416) 443-9982
E-Mail: ohba@istar.ca
Website: www.homesontario.com

Ontario Industrial Roofing Contractors Association

940 The East Mall, Suite 301
Etobicoke, Ontario M9B 6J7
Attention: Mr. Don Marks
Phone: (416) 695-4114
1-888-336-4722
Fax: (416) 695-9920
E-Mail: oirca@ulti.net
Website: www.ontarioroofing.com

Ontario Institute of Quantity Surveyors

P.O. Box 124, Stn. "R"
Toronto, On M4G 3Z3
Attention: Mrs. Lois Metcalf
Phone: (905) 471-0882
Fax: (905) 471-7545

Ontario Painting Contractors Association

211 Consumers Rd., Ste. 305
Willowdale, On M2J 4G8
Attention: Ms. Maureen Marquardt
Phone: (416) 498-1897
Fax: (416) 498-6757
E-Mail: mmarquardt@ibm.net
Website: www.ontpca.org

Ontario Pipe Trades Council

930 Sheldon Ct.
Burlington, Ontario L7L 5K6
Attention: Neil McCormick
Phone: (905) 631-8989
Fax: (905) 631-9055

Ontario Refrigeration & Air Conditioning Contractors Association

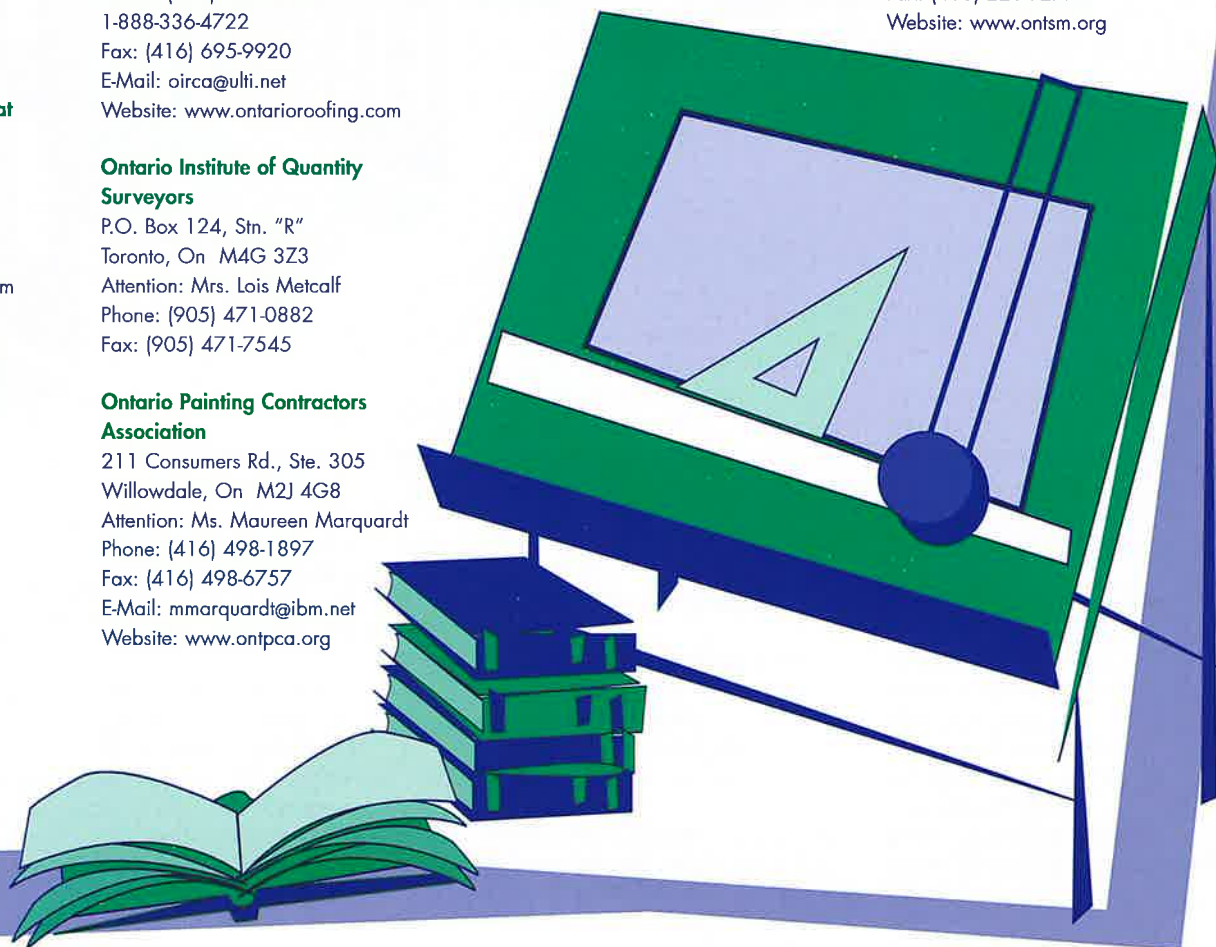
1020 Brock Rd., Suite 2003
Pickering, Ontario L1W 3H2
Attention: Mr. Barrie Eon
Phone: (905) 420-7272
Fax: (905) 420-7288

Ontario Sewer & Watermain Construction Association

5045 Orbitor Dr., Unit #12, Suite 300
Mississauga, Ontario L4W 4Y4
Phone: (905) 629-7766
Fax: (905) 629-0587
E-Mail: oswca@sympatico.ca
Website: www.oswca.org

Ontario Sheet Metal & Air Handling Group

1110 Sheppard Ave. East, Suite 310
Willowdale, Ontario M2K 2W2
Attention: Mr. Wayne Peterson
Phone: (416) 226-5533
Fax: (416) 226-9277
Website: www.ontsm.org



Ont. Sheet Metal Workers' & Roofers' Conference

1312 Hurontario St.
Mississauga, Ontario L5G 3H3
Phone: (905) 278-2280
Fax: (905) 278-4109
Attention: Jim Moffat
E-Mail: osmwrc@sympatico.ca

Operative Plasterers', Cement Masons' and Restoration Steeplejacks' International Association of the United States and Canada, Local 598

242 Applewood Cres., Unit #9
Concord, Ontario L4K 4E5
Phone: (905) 761-0433
Fax: (905) 761-0805
Attention: Steve Zarich

Professional Engineers of Ontario

25 Sheppard Ave. West, Suite 1000
North York, On M2N 6S9
Attention: Ms. Laurie Macdonald
Phone: (416) 224-1100
Fax: (416) 224-8168
Website: www.peo.on.ca

Reinforcing Steel Institute of Ontario

70 Leek Cres.
Richmond Hill, Ontario L4B 1H1
Attention: Mr. George Knapton
Phone: (416) 499-4000
Fax: (416) 499-8752
E-Mail: mthorburn@tcanetworks.com

Resilient Flooring Contractors Association of Ontario

70 Leek Crescent
Richmond Hill, On L4B 1H1
Attention: Ms. Mary Thorburn
Phone: (416) 499-4000
Fax: (416) 499-8752
E-Mail: mthorburn@tcanetworks.com

Terrazzo Tile & Marble Guild of Ontario, Inc.

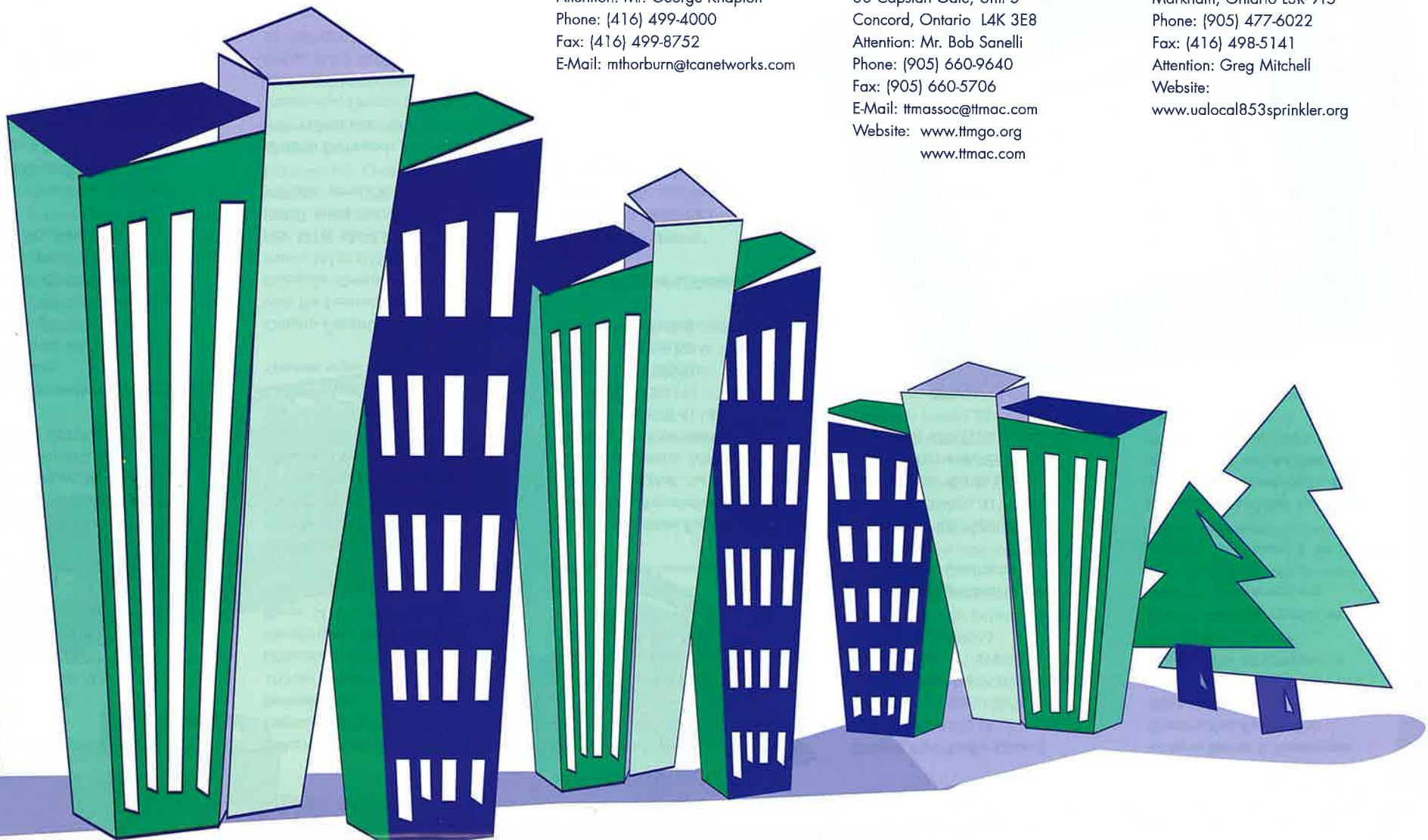
30 Capstan Gate, Unit 5
Concord, Ontario L4K 3E8
Attention: Mr. Bob Sanelli
Phone: (905) 660-9640
Fax: (905) 660-5706
E-Mail: ttmassoc@ttmac.com
Website: www.ttmgo.org
www.ttmac.com

UA Local 787/ ORAC Joint Training & Apprenticeship Committee

419 Deerpark Dr.
Brampton, Ontario L6T 5K3
Phone: (905) 790-9662
Fax: (905) 790-9711
Attention: Shane McCarthy
Website: www.ualocal787.org

UA Local 853 Sprinkler Fitters

60 Shields Ct.
Markham, Ontario L3R 9T5
Phone: (905) 477-6022
Fax: (416) 498-5141
Attention: Greg Mitchell
Website:
www.ualocal853sprinkler.org





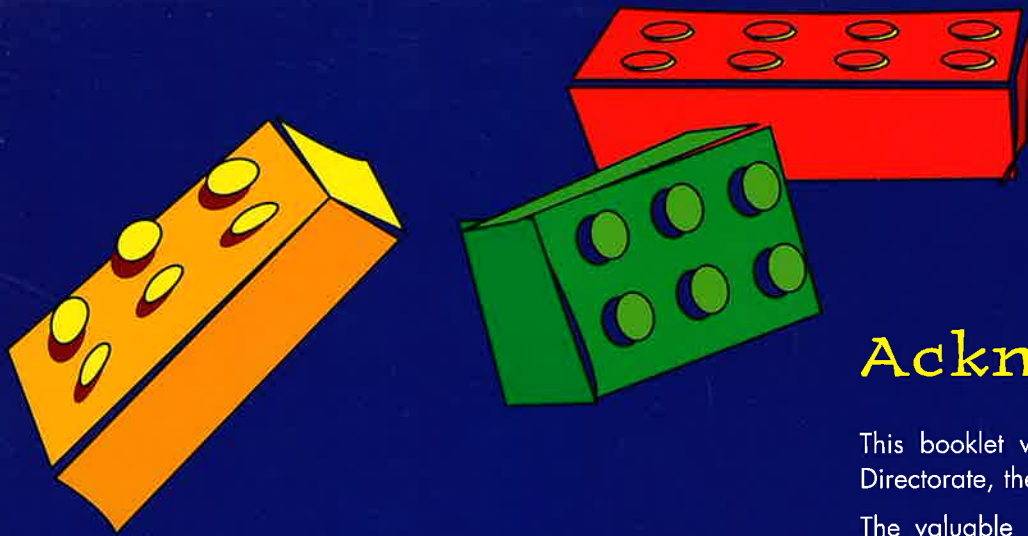
The products of builders are highly evident in our environment. Everyday structures such as schools, churches, homes and bridges were all created by skilled workers in the building trades. In addition, world renowned architectural creations such as the pyramids in Egypt, the Colosseum in Rome and the Taj Mahal in India indicate the tremendous skills of builders throughout history and the timelessness of superior workmanship.

—History of the Building Profession



Canadian employers need a person who can: Communicate, Think, Learn, Work with Others. Canadian employers need a person who can demonstrate: Positive Attitudes and Behaviour, Responsibility, Adaptability.

—an excerpt from: Employability Skills Profile; What Are Employers Looking For?



Acknowledgements:

This booklet was made possible through funds provided by the Ontario Women's Directorate, the Ontario Construction Secretariat and the Ontario Gold Seal Committee. The valuable contributions made by those who participated on our Career Booklet Committee must also be recognized. They were:

Don Atfield, Ontario Masonry Training Centre

Don Cameron, Ontario General Contractors Association

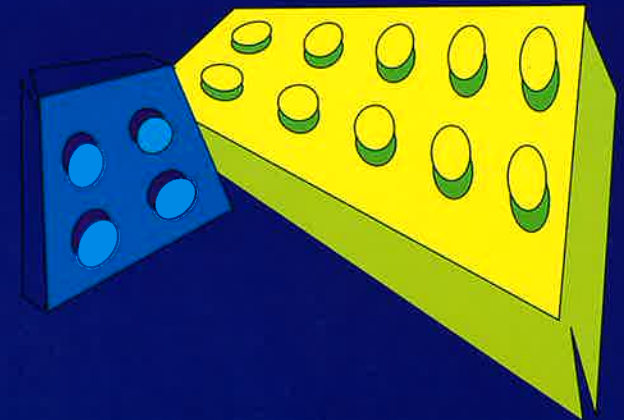
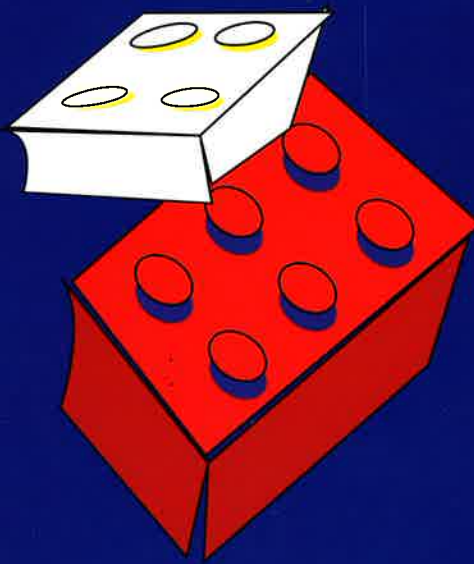
Catherine Hofstetter, The National Association of Women in Construction –
Toronto Chapter 295
The Canadian Fence Industry Association representative
to the Council of Ontario Construction Associations

Hugh Laird, Interior Systems Contractors Association of Ontario

Scott Macivor, Ontario Construction Secretariat

Doris McKeogh, The National Association of Women in Construction – Toronto
Chapter 295

David Surplis, Council of Ontario Construction Associations



THE FUTURE IS YOURS TO BUILD

JobsJobsJobs.

It's understandable to be concerned about picking the right job for you – in the right industry. To help you do just that, we've put together this booklet on careers in construction. As you flip through it, keep in mind that our industry is the second largest business sector in Ontario. We employ more than 10% of the province's employees. But to grow, and prosper, we need **you**.

The need for skilled tradespeople, supervisory personnel, administrative staff and other professionals is growing.

Who, Me?

Of course. Our industry is a strong supporter of equal opportunity employment which means that we're committed to advancing the career aspirations of **all** qualified workers – men and women alike, all races and all levels of physical and mental abilities. Remember, too, that the tradespeople you see on job sites are only part of the picture.

Our industry also includes tens of thousands of behind-the-scenes professionals including developers, architects, engineers, salespeople, administrators, inspectors, safety officers, manufacturers, researchers, educators, lawyers and financial services specialists. Such diversity practically guarantees that you'll find a construction career that fits your talents.

So What Do I Have To Do?

When it comes to preparing for a career in construction our motto is "Dig Deep, Aim High". Indeed, the people who excel in our industry have a keen desire to learn and a great capacity to **WORK AS PART OF A TEAM**. Like the projects they help to build, their careers grow from a firm foundation. You can put your construction career in high gear, **RIGHT NOW**, by beefing up on a few important subjects:

What's In It For Me?

Compensation: On average, wage rates for full time positions in the construction industry are higher than in many other business industries.

Global Opportunity: Buildings may be location specific but construction expertise is a highly portable asset. As such, our skilled professionals have become a hot commodity in many of the world's developing markets where infrastructure is still in its infancy. For this reason, a career in construction may be your passport to a footloose and profitable future.

Job Flexibility: Depending on the career you choose, and the projects you work on, the hours you work, how long you work and where you work may vary a great deal. This kind of flexibility and variety may give you more options when it comes to juggling your priorities.

Challenge: No two projects are ever exactly alike. That means that every day brings a new challenge—and a new opportunity for you to grow.

Tangible Record of Achievement: As part of the construction industry, you CAN build a better world for yourself, your friends and your family. Every day, you'll get satisfaction from seeing and touching the progress that you've made. Everything you help to create will become a permanent record of your skill.

Technology: Our industry, like others, has been profoundly affected by changes in technology. Emerging careers in environmental engineering, cable optics and telecommunications, for example, are creating rewarding opportunities for people with strong skills in maths, physics and computer science.

Communications: In our industry, TEAMWORK IS EVERYTHING. That's why verbal and written communication skills are vital to your success. Skilled tradespeople need to be able to read and understand drawings and specifications in order to build what the designer envisioned as well as to master the precision-operated machinery and be able to convey health and safety instructions which are a trademark of our industry. Project leaders must be able to communicate priorities to the team. If you choose to become your own boss, you'll also need these same skills to process the mountain

of paperwork now associated with running a profitable business.

Skills Training: Some high schools offer a variety of skills training courses. If you're considering a job as a skilled tradesperson, these classes are excellent career builders. Colleges and universities both offer excellent post-secondary training for jobs in construction no matter which you choose.

Physical Fitness: Although some construction occupations are physically demanding, others simply require a good level of general fitness to succeed. Others require good hand-eye coordination and administrative positions open up possibilities for those with mobility handicaps.

Safety: All jobs require a strong commitment to safety. If you stay fit, it'll be easier to stay on top of your job's demands.

Need More Info?

No problem. At the end of each career profile, we've included the name of an association or other source that you can contact for more information. Addresses and telephone numbers for these contacts are listed at the back of the booklet. For the most current information, please contact your guidance counselor. Also, keep in mind that some community colleges have information on construction careers through their Access to Apprenticeship offices. College and university calendars also list their technology and construction courses. For information outside of Ontario call the Canadian Construction Association (613-236-9455)