



ASSOCIATION
DES FIRMES DE
GÉNIE-CONSEIL
QUÉBEC



SCHEDULE OF FEES

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SCHEDULE OF FEES

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1. GENERAL

1.1

Text

This publication of the Association of Consulting Engineering Companies – Quebec is the current Schedule of Fees for calculating remuneration for consulting engineering services. In the event of any differences between the English and French texts, the French text shall prevail. The masculine is used here solely in the interest of conciseness and without distinction as to gender.

1.2

Definitions

- a) "Association" means the Association of Consulting Engineering Companies – Quebec.
- b) "Consulting Engineer" means a member of the Association of Consulting Engineering Companies – Quebec.
- c) "Client" means the natural or legal person that retains the services of the Consulting Engineer by contract.
- d) "Contract for Services" means all services assigned to the Consulting Engineer, including the terms and conditions governing performance of the services. This contract establishes the rights, obligations and responsibilities of the Consulting Engineer and the Client for the execution of a Contract for Services, which are explicitly described therein, in accordance with the terms of payment described in this schedule of fees.
- e) "Principal" means the professional designated by the Consulting Engineer to manage, coordinate and supervise the assignment. This role may be assigned to various professionals in the course of a single assignment.
- f) Class "A" estimate
Internal bid, margin of error of 5%
- g) Class "B" estimate
Control estimate, margin of error of 5% to 15%
- h) Class "C" estimate
Budget estimate, margin of error of 15% to 20%
- i) Class "D" estimate
Design estimate, margin of error of 20% to 100%

Reference: Engineering Services Management Guide and Glossary, AICQ, 2007.

1.3

Contract for Services

It is recommended that the Consulting Engineer sign a Contract for Services with the Client before starting the work. This Contract shall specify the schedule of fees mutually agreed upon which should, in principle, be at least equal to this Schedule of Fees.

2. SERVICES OF THE CONSULTING ENGINEER

Consulting engineering services consist in planning, designing, composing, evaluating, advising, reporting, directing or supervising, or managing any of the foregoing, that requires the application of engineering principles, and that concerns the safeguarding of life, health, property, economic interests, the public welfare or the environment¹.

2.1

Division of Services

The services offered by the Consulting Engineer cover almost every aspect of our economy and include technical studies and engineering in the broad sense of the term, including environmental studies. For the purpose of determining an appropriate basis of remuneration, the Consulting Engineer's services are classified based on the following seven (7) divisions:

- Advisory Services (or Feasibility Studies or Preliminary Design)
- Preparatory Studies
- Preliminary (or Outline) Plans and Specifications
- Final (or Detailed) Plans and Specifications
- Services During Construction
- Services Not Remunerated on a Percentage Basis
- Management Services

2.2

Description of Services

2.2.1

Advisory Services or Feasibility Studies or Preliminary Design

Advisory services include consultation, advising, expert testimony, appraisals, evaluations, inspections, testing, identification of environmental aspects in the analysis of project variables and other services involving the compilation, analysis, evaluation and interpretation of data and information leading to specialized conclusions and recommendations. These services also include opportunity and requirements studies, as well as traffic studies. Design estimates (class "D") are generally prepared during the feasibility studies and constitute a very summary estimate with a margin of error of 20% to 100%.

2.2.2

Preparatory Studies

Preparatory studies serve as the basis for a design and conclusions or recommendations related to the execution of a project when, in the Client's opinion, the project requires such study.

They consist of research, exploration, surveys, preparation of plans, technical and functional programs, measurement of the area of land involved in a program, analysis of the conditions of possible solutions including para-seismic studies of existing structures, economic studies and studies of development costs, and surveys of existing works.

They also consist of topographic surveys, preparation of plans of these surveys of scenarios, LEED certifications (or other programs such as Go Green), preliminary studies of energy efficiency, preliminary environmental studies, analysis of the conditions of possible solutions, selection process for the option with the smallest impact, economic studies and studies of development costs, project identification memoranda, etc.

If the design estimate (class "D") is not completed in the feasibility studies phase, it can be done during the preparatory studies phase.

2.2.3

Preliminary (or Outline) Plans and Specifications

Preliminary plans and specifications consist in the preparation and graphic representation of the complete program provided by the Client and the solution selected during the preparatory studies phase.

These services include, among others, the following elements:

- a) The report describing the proposed technical solution;
- b) Preparation and presentation of preliminary plans and outline specifications;
- c) Preparation of the class "C" cost estimate for the work in accordance with the divisions of the specifications;
- d) Preparation of the master schedule;
- e) Final design;
- f) Update of the schedule and cost estimate; etc.

The budget estimate (class "C") is usually prepared during the preliminary (or outline) plans and specifications phase (margin of error: 15% to 20%).

2.2.4

Final (or Detailed) Plans and Specifications

Final plans and specifications are prepared after the Consulting Engineer has established, according to the foregoing, the bases for the final design and they have been submitted to and formally accepted by the Client in writing within the prescribed time frame.

These services consist, among others, of the following:

- a) preparation of construction drawings, details, general terms and technical specifications related to his field of expertise and required for the purposes of the bid in a single tender call and single-phase construction;
- b) preparation of the general terms, technical specifications, preparation of the other documents required to carry out a single tender call, lists of quantities with estimated unit prices for work for which it is customary to allocate unit prices for a single work item;
- c) revision of the schedule.

The control estimate (Class "B") is usually done once the final plans and specifications are approximately 60% complete (margin of error: 5% to 15%).

2.2.5

Services During Construction Remunerated on a Percentage Basis

The services stipulated in Articles 2.2.5.1 and 2.2.5.2 are remunerated on a percentage basis. These services shall be provided to the Client by the Consulting Engineer upon written request from the Client and shall be remunerated on a percentage basis.

2.2.5.1

Office services

The services rendered at the offices of the Consulting Engineer consist of the following:

- a) One (1) bid analysis and one (1) recommendation to the Client;
- b) Control of shop drawings to ascertain overall compliance of the work and review of revised shop drawings when corrections are requested at the time of the initial submission;
- c) Clarification and/or interpretation of ambiguous, contradictory and incomplete information on plans and specifications;
- d) One (1) equivalence analysis per product specified and one (1) recommendation in this regard to the Client;
- e) One (1) analysis and one (1) recommendation for each change request;
- f) Verification of claims for progress payment submitted and one (1) recommendation to the Client for each claim;
- g) Preparation of change orders following from a request from the Consulting Engineer and negotiations concerning them;
- h) Advice to the Client on technical issues that may arise during construction;
- i) Correspondence related to the construction work;
- j) For the purpose of recommendations to the Client, verification of substitute materials.

2.2.5.2

Non-resident services rendered at the worksite

Non-resident services rendered at the worksite during construction consist of the following:

- a) In accordance with the schedule submitted by the contractor and accepted, the engineer shall agree with the Client on a work plan specifying the supervision to be provided at the worksite, taking into account the following elements: budget, number of hours of supervision corresponding to the budget in accordance with the classification of employee assigned to the worksite, method of remuneration, contracting approach and nature of the work for certain specialities;
- b) The supervision work plan is intended to generally make sure that the progress of the works, their execution and the quality of the materials and labour are in compliance with the requirements of the contractual documents, not necessarily implying qualitative, quantitative, thorough and continuous checking;

- c) The work plan shall specify and quantify the method and nature of work-site interventions for the expected duration of the worksite, based on the fees allocated and the corresponding number of hours of supervision. It shall specify, among other things, the frequency and number of meetings at the worksite; the frequency and number of inspection visits; the target dates for the supervision report, in particular the provisional and final acceptance of the works;
- d) On the basis of observations made during periodic visits to the worksite, information to the Client about the progress of the works and defects or deficiencies noted in the work of the contractor, and orders for the redoing of work considered not to be in compliance with the contractual documents;
- e) Participation in meetings at the worksite and meetings with the Client;
- f) The drawing up of one (1) list of deficiencies and one (1) verification of the full correction of all elements on that list;
- g) One (1) recommendation to the Client with regard to the provisional acceptance of the works;
- h) One (1) recommendation to the Client with regard to the final acceptance of the works.

2.2.6

Other Services Not Remunerated on a Percentage Basis

The services stipulated in Articles 2.2.6.1 and 2.2.6.2 are not remunerated on a percentage basis of calculation. These services shall be provided to the Client by the Consulting Engineer upon written request from the Client and shall be remunerated on an hourly or lump sum basis of calculation.

2.2.6.1

Resident services rendered during construction

Resident services rendered at the worksite consist of the following:

- a) Increased time of presence at the worksite up to the permanent assignment of personnel to provide the technical advice necessary for the execution and inspection of the works as well as to supervise tests, prepare reports on work progress and record all changes to work execution resulting from particular site conditions. Services relating to quality control shall be supplied by the Client but remain under the control of the Consulting Engineer. The resident worksite personnel shall not direct the personnel of the contractor or subcontractor, nor determine the construction procedures and methods or equipment to be used;
- b) Final inspection and supervision of performance trials of installed machinery and equipment to determine whether the suitability and performance warranties have been met;
- c) Annotation of the original drawings to indicate the work as-built.

2.2.6.2

Special services

Special services are all additional services relating to projects and requested in writing by the Client and not remunerated on a percentage basis. Certain special services may apply to many phases of a given project. For the sake of clarity, they have been solely identified in the main phase where they are generally found, but they need to be applied according to the project's specificities. They include, in particular:

1) General

- a) Organization of a project office;
- b) Additional services resulting from a program change;
- c) Execution through multiple tender calls;
- d) Technical or administrative support to the Client resulting from his difficulty fulfilling his contractual obligations associated with the project;
- e) Project management and coordination services normally provided by the architect, such as the preparation of contracts and minutes;
- f) Translation.

2) Engineering

- a) Preparation of simulations, a thermal report or preliminary energy efficiency study;
- b) Surveys, data processing and the preparation of plans;
- c) Alternatives studies;
- d) Preparation of administrative and technical files for grant and certification applications (e.g., procedures for LEED certification);
- e) Engineering services resulting from design or technical assistance works not leading to construction costs in his discipline (e.g., natural ventilation, natural lighting, masonry, etc.);
- f) Services following from management projects including advance purchasing and pre-orders;
- g) Design, in the form of sketches or plans and specifications, necessary to the preparation of change orders required by the Client or as a result of unforeseeable site conditions.

3) Construction

- a) All required services not mentioned in the work plan as described in Article 2.2.5.2 and all services required after the completion date provided for in that work plan;
- b) Preparation and follow-up of requests for authorizations and applications for the necessary permits before the work begins;
- c) Establishment of grades, levels and points lists for the installation of works;
- d) Development and update of a work schedule;
- e) General coordination of the works and various stakeholders in the project;
- f) Services associated with supplying to the client at the end of the work a copy, on sensitized film or computer medium, of the revised original drawings showing

- g) the works as executed;
- h) Analysis and preparation of files associated with claims and disputes;
- i) Issuance of certificates of compliance;
- j) For general engineering assignments, final inspection and supervision of operating trials for machinery and equipment installed to determine whether they meet the suitability and performance warranties;
- k) Aid, assistance and the commissioning of the establishment of the equipment installed to determine whether it meets the suitability and performance warranties;
- l) Preparation of maintenance and operating manuals for the equipment installed;
- m) Training of technical personnel assigned to the operation.

4) Environment

- a) Preparation of the final environmental assessments and the documents required under the process for obtaining the necessary authorizations and permits (municipal, provincial, federal levels). The process also includes public hearings on the environment;
- b) Design and supervision of environmental monitoring programs;
- c) Realization of the environmental monitoring visits and periodic follow-ups required by the permits, authorizations, legislations and regulations applicable to the project.

2.2.7

Management Services

The objectives of a management assignment are to coordinate and control, through the application of management techniques, all project-related work and to achieve well-designed and well-built works that meet the Client's requirements with regard to function, cost and schedule.

2.2.7.1

Project management

Project management includes the organization and administration of all project-related work, from design to acceptance of the works by the Client. Management services may include, among other things, coordination of the following services:

- a) Determination of the Client's requirements;
- b) Assistance with financing;
- c) Selection of consultants;
- d) Design and planning;
- e) Budget and cost control;
- f) Accounting;
- g) Programming and scheduling;
- h) Minutes, record-keeping and documentation management;
- i) Formulation of administrative procedures;

- j) Preparation of technical and contractual documents;
- k) Procurement, contract follow-up and expediting;
- l) Contractor selection and contract award;
- m) Construction supervision;
- n) Quality control of materials and their utilization;
- o) Commissioning;
- p) Risk analysis;
- q) Value analysis;
- r) Human resources management;
- s) Communications;
- t) Quality control;
- u) Content management.

2.2.7.2

Construction management

Construction management includes services provided in relation to and during construction work only. Construction management services may include, without being limited to, the following:

- a) Assistance in the preliminary planning required for the design phase;
- b) Advice to the Client with regard to schedule, budget, economic selection among various options and choice of materials and their specifications during the design phase;
- c) Advice to the Client and mobilization of the services and contractors required to carry out the various phases of the work;
- d) Planning, scheduling, coordination and supervision of the Contractor's activities;
- e) Technical and related support for administration of the work.

2.2.7.3

Remuneration of management services

The Consulting Engineer is normally remunerated for management services using the hourly method or in accordance with a lump sum negotiated on the basis of the tasks to be performed. This lump sum is based on the fees provided for in this schedule.

3. FEES

3.1 Methods of Remuneration

The method of calculating engineering fees and expenses generally depends on the nature of the services. There are three methods of remuneration:

3.1.1 Remuneration Method "A": Hourly Basis

3.1.2 Remuneration Method "B": Percentage Basis

3.1.3 Remuneration Method "C": Lump Sum Basis

The following table indicates which of the remuneration methods applies to the services defined in Article 2.

Ref.	Division	Method of Remuneration		
		Hourly "A"	Percent-	Lump Sum "C"
2.2.1	Advisory Services	yes	no	yes
2.2.2	Preparatory Studies	yes	no	yes
2.2.3	Preliminary Plans and Specifications	yes	yes	yes
2.2.4	Final Plans and Specifications	yes	yes	yes
2.2.5.1	Office Services	yes	yes	yes
2.2.5.2	Non-resident Services Rendered at the Worksite	yes	yes	yes
2.2.6.1	Resident Services Rendered at the Worksite	yes	no	yes
2.2.6.2	Special Services	yes	no	yes
2.2.7	Management Services	yes	no	yes

When more than one method of remuneration is used for a given project, it is recommended that the Consulting Engineer and Client formally agree on the basis for the calculation of fees for each of the specific services required, in accordance with the above table.

The calculation methods and the application of the method of remuneration to the various services provided by the Consulting Engineer are explained in the following articles.

3.2 Remuneration on an Hourly Basis

According to this method, the remuneration is defined as the product of the total number of hours, to the nearest half-hour, worked by the personnel of the Consulting Engineer on the supply of services, multiplied by the Hourly Billing Rate established for each member of said personnel.

All time worked on the supply of services at the office of the Consulting Engineer, at the Client's, or elsewhere, is recorded in hours and includes overtime done by personnel as well as travelling time during normal working hours and up to a maximum of three hours per day for travelling done outside normal working hours.

3.2.1 Classification of Employees

The basic hourly rate for personnel at the firm is established based on the classification established by the Réseau des ingénieurs du Québec; this hourly rate shall be indexed on July 1st of each year based on the average increase in the remuneration of engineers for each category, as measured in the survey by the Réseau des ingénieurs du Québec on the wages and salaries of Québec's salaried engineers for the latest year available.

3.2.2 Hourly Rate

The hourly rate takes into account costs related to the firm's day-to-day operations and employer expenses.

The main indirect expenses taken into account for salaries and social benefits are:

- a) Holidays, annual leave and sick leave;
- b) Bonuses, benefits and various allowances;
- c) Group insurance;
- d) Pension plans;
- e) Salaries of the firm's administrative personnel;
- f) All other expenses of a similar nature.

The main indirect expenses taken into account for general administrative expenses are:

- a) Management, administration and financing costs;
- b) Professional liability and other insurance;
- c) Accounting and audit costs and legal expenses;
- d) Cost of purchasing, leasing, maintaining, restoring and operating building spaces;
- e) Cost of purchasing, leasing and maintaining office furnishings;
- f) Cost of purchasing, leasing, maintaining and operating computer equipment and basic CAD software;
- g) Cost of archiving and digitizing documents and subscriptions to various publications;
- h) Postage, courier and telecommunications costs;
- i) Office and filing expenses and expenses for in-house photocopying not directly related to the subject matter of the contract (the hours worked by administrative support staff and clerks performing work directly related to the subject matter of the contract shall be billed);
- j) The original plans and specifications or the original report required under the contract, on digital medium, as well as the costs of printing or reproducing the final version of a complete copy;
- k) Membership fees in professional orders or associations;
- l) Costs for the digital signature of documents;
- m) Membership fees in professional orders or associations;
- n) Representation and advertising costs;
- o) Costs for the establishment of administrative standards and procedures;
- p) Bank fees;
- q) Taxes and profits of the firm;
- r) All other expenses of a similar nature.

3.2.3

Overtime

Overtime is non-reimbursable, except upon written authorization by the Client. In this case, when a staff member of the firm works in excess of the hours stipulated under the Québec Labour Standards Act in a week on a single assignment, the remuneration for overtime in excess of the normal workweek, as defined under the Québec Labour Standards Act, is calculated at the hourly rate set for normal hours of work, plus 25%.

3.2.4

Reimbursable Costs

The Consulting Engineer shall be reimbursed by the Client for all expenses properly incurred in the performance of the services, including all allowable expenses and those related to computer processing, as hereinafter described.

3.2.4.1

Allowable expenses

The Client shall reimburse the Consulting Engineer the cost of all allowable expenses plus 10%.

Allowable expenses shall include:

- a) Living and travel expenses of the Principals and personnel of the Consulting Engineer when performing tasks included in the services away from their home office;
- b) Communications expenses related to the services, such as long distance telephone calls, worksite telephone services, cell phones, fax charges and couriers;
- c) Reproduction costs related to the services such as photocopies, printouts, CDs/DVDs, USB keys, etc.;
- d) For resident services, the cost of supply and maintenance of office installations and equipment at the worksite office and the costs arising from special worksite risks;
- e) Travel, living and moving expenses for the family of a staff member, subject to the Client's approval;
- f) Costs related to the Consulting Engineer's general third party and professional liability insurance currently carried or acquired in accordance with the requirements of the Client;
- g) Training specifically required by the Client.

3.2.4.2

Computer processing and other specialized equipment expenses

The cost of installing and operating specialized computer processing equipment and software required by the Client for dispensing the services, other than the equipment that the Consulting Engineer normally has on hand, is reimbursable. In this case, the hourly rate applicable shall not exceed the corresponding comparable commercial rate.

3.2.5

Terms of Payment

The Consulting Engineer's invoice shall be payable in full within thirty days of submission and any balance unpaid after that date shall bear interest at the Bank of Canada annual prime rate on the date of said invoice of the Consulting Engineer, plus two (2) percentage points calculated on a monthly basis or in accordance with the firm's policy.

3.3

Remuneration on a Percentage Basis

The remuneration for a Consulting Engineer's services for works of conventional design corresponding to services described in Articles 2.2.3, 2.2.4 and 2.2.5 may be on a Percentage Basis.

For the purposes of this Schedule, the works are defined as conventional when they are to be carried out by one General Contractor and one sub-contractor only for each sub-trade, following one tender call only, and in accordance with one schedule established for the whole Project. This implies that preparatory studies designed to clearly define the scope and extent of the works have been completed. Article 3.3.5 specifies the manner in which the Percentage Basis is applied.

3.3.1

Calculation of Remuneration

Remuneration on a Percentage Basis for services provided by the Consulting Engineer is calculated by applying the percentage corresponding to the category applicable to the project to the cost of engineering works.

- a) Payable fees are calculated based on the applicable category of the percentage scale in accordance with the distribution detailed in section 3.3.5.
- b) The cost of works provided for in the percentage scale excludes taxes.

For the purpose of calculating the fees for services described in Articles 2.2.5.1 and 2.2.5.2 (Services During Construction Remunerated on a Percentage Basis), the cost of works represents the average cost of bids, excluding the lowest bid and the highest bid.

3.3.2

Cost of Engineering Works

3.3.2.1

Cost estimate and revised cost estimate of the works

The estimated cost and the revised estimated cost of engineering works shall include the cost of all items necessary to complete the engineering works for which the Consulting Engineer provides the services, or for which he is responsible, including, among others, the following:

- a) Labour;
 - b) Materials;
 - c) Machinery and equipment;
 - d) Expenses;
 - e) The portion of worksite mobilization costs, general expenses, overhead and profits of the General Contractor applicable to the engineering works;
- The cost of works provided for in the percentage scale excludes taxes.

These costs are used as the basis for calculating the fees for the preparation of design and preliminary plans and specifications (estimated cost of the work) as well as the final plans and specifications (revised estimated cost of the work) until such time as the true value of the work is determined.

3.3.2.2**Actual cost of the work (true value of the work)**

The average cost of the work related to each sub-trade calculated on the basis of tenders received by the Bureau des soumissions déposées du Québec (BSDQ) where available or, otherwise, on the basis of average costs supplied by the General Contractors. Where applicable, this cost must be adjusted to take into account the provisions stipulated in Articles 3.3.2.3 to 3.3.2.7. If they are not included, we shall also add the portion of worksite mobilization costs, general expenses, overhead and profits of the General Contractor applicable to the engineering works, this portion to be determined by a prorata distribution of the amount on the basis of the Schedule of Costs supplied by the General Contractor.

The cost of works provided for in the percentage scale excludes taxes.

This cost is representative of the true value of the work, and is used as the basis for calculating all fees. All fee adjustments following the establishment of this true value of the cost of works are then made on subsequent invoices of the Consulting Engineer.

3.3.2.3

Whenever the Client furnishes materials, equipment, labour or services that are incorporated into the engineering work, the Consulting Engineer shall include in the total cost of said work the fair market value of said materials or equipment as though they were purchased new, as well as salaries and the cost of other services applicable at the time when the work is executed, taxes and general conditions included. The same conditions apply in the case of advance purchasing.

3.3.2.4

Whenever the Client or a Contractor, at the Client's request, furnishes used equipment or materials, the Consulting Engineer shall use the fair market value of the materials or equipment as though they were purchased new in calculating the cost of engineering works, taxes and general conditions included.

3.3.2.5

The cost of engineering works shall not be reduced on account of any claim by the Client of any nature whatever, or on account of any amounts withheld from payments due to any Contractor.

3.3.2.6

Fixed equipment integrated to the building, not specified by the firm and with electromechanical connections, shall be considered as belonging to the mechanical/electrical specialties. In this case, 50% of the total cost of this equipment shall be included in the cost of the work for the purpose of calculating the fees.

3.3.2.7

The cost of engineering works shall include neither the professional fees nor reimbursable expenses of the Consulting Engineer, nor the cost of the site on which the works are carried out.

3.3.3

Classification of Works

Engineering works have been classified in three groups comprising several categories each, using technical complexity as the basic criterion.

The works not listed under any of the categories appearing in this Article belong to the category of works with which they have the greatest affinity from the standpoint of complexity.

In the event of a substantial change in the degree of complexity of any given works, their classification in the established categories may be modified jointly by the Client and the Association of Consulting Engineering Companies – Quebec in collaboration with the Consulting Engineer.

When, as expert consultant for general engineering works, the Consulting Engineer is required to render coordination services relative to works designed by other specialists, engineers or experts, he shall be entitled to additional remuneration for such coordination services. Fees for architectural services, if required, shall be over and above those of the Consulting Engineer.

Whenever portions of the work fall under different categories, the fees shall be the lesser of the two amounts calculated as follows:

- a) By applying the percentage for each applicable category to the corresponding portion of the cost of the works, and totalling the results;
- b) By applying the highest of the applicable category rates to the total cost of the works.

3.3.3.1

General engineering

The fee shall cover normal coordination services relative to works for which the Consulting Engineer prepares the plans and specifications. The fees for services rendered for a general engineering project shall be calculated by applying the rate applicable for the category corresponding to the project, in accordance with the following classifications, to the total cost of engineering works (including, if any, the building engineering works comprised in the project).

Category I

All of the following works, when carried out in a rural environment: local roads, storm sewers and surface drainage systems, culverts with an equivalent diameter of less than two (2) metres, irrigation systems excluding pumping stations.

Category II

Tunnels, bridges and viaducts, flood control structures, retention ponds in rural environments, collector sewers, interceptor sewers, overflow sewers, sanitary sewer systems, combined sewer systems and storm sewer systems, water distribution systems, culverts in rural environments, locks, canals, wharves, simple harbour works (without jetties or seawalls), urban throughways, streets, sidewalks, bikeways, rural highways including interchanges and other related works, street lighting, public utilities, site design excluding retention structures, rural airports, mines and industrial infrastructures excluding processes.

Category III

Stabilization ponds, pumping stations, water treatment plants and water intake structures, sewage treatment plants, industrial and household waste treatment plants, site design with retention structures, dams, flood control structures, retention ponds in urban environments, diesel or gas turbine electric generating sets, all types of pre-stressed and post-tensioned concrete works.

3.3.3.2

Building structures and foundations

The fees for services rendered in relation to work on building structures and foundations shall be calculated by applying the percentage applicable for the category corresponding to the works in accordance with the following classifications to the total cost of said works.

Category I

This category applies to wood frame residential construction only.

Category II

This category applies to all other structural and foundation works.

Category III

This category includes:

- a) Monumental buildings, churches, museums and theatres;
- b) Industrial buildings of complex construction where the shape of the building is determined by the machinery;
- c) Office buildings, hotels and apartment buildings with five (5) storeys or less (including the ground floor);
- d) Hospitals and research laboratories;
- e) All types of pre-stressed and post-tensioned concrete works.

3.3.3.3

Electrical and mechanical installations for buildings

The fees for services rendered for work on electrical and mechanical installations for buildings shall be calculated by applying to the cost of said installations the percentage applicable for the category corresponding to the works in accordance with the following classifications; however, when the cost for work on the electrical and mechanical installations for a building is less than \$560,000, the fees shall be calculated on an hourly basis of calculation or on a lump sum basis of calculation.

Category I

Non-existent.

Category II

This category applies to work on conventional plumbing and heating, conventional lighting and power distribution, and exhaust ventilation with simple ductwork, for the following buildings:

- a) Warehouses;
- b) Armouries;
- c) Hangars;
- d) Public garages;
- e) Light industry plants.

Category III

This category applies to multiple-unit residential construction only.

Category IV

This category applies to all electrical and mechanical installation work.

3.3.4**Table of Fees on a Percentage Basis**

The percentage fees for the four (4) categories of work described above are listed in the following tables. The fees indicated in each table cover the services of the Consulting Engineer defined in Articles 2.2.3, 2.2.4 and 2.2.5.

3.3.4.1

Table of fees for Category I works

Rates in effect from July 1, 2015, to June 30, 2016

Cost of Works*	Fees for services defined in Articles 2.2.3, 2.2.4 and 2.2.5
Less than \$115,000	Hourly or Lump Sum Basis
\$115,000 to \$340,000	\$12,000 on first \$115,000 + 9.5% on next \$225,000
\$340,000 to \$560,000	\$31,000 on first \$340,000 + 8.6% on next \$220,000
\$560,000 to \$1,150,000	\$50,000 on first \$560,000 + 7.8% on next \$590,000
\$1,150,000 to \$2,000,000	\$96,000 on first \$1,150,000 + 6.9% on next \$850,000
\$2,000,000 to \$4,000,000	\$155,000 on first \$2,000,000 + 6.3% on next \$2,000,000
\$4,000,000 to \$10,000,000	\$281,000 on first \$4,000,000 + 5.9% on next \$6,000,000
\$10,000,000 to \$20,000,000	\$635,000 on first \$10,000,000 + 5.4% on next \$10,000,000
\$20,000,000 and over	\$1,175,000 on first \$20,000,000 + 5.2% on balance

* Exclusive of taxes.

* The value of the fees calculated does not include resident services during construction.

* The amounts associated with the classes of construction costs must be indexed annually according to the increase in the Non-residential Building Construction Price Index, as calculated by Statistics Canada.

* See notes following the tables.

3.3.4.2

Table of fees for Category II works

Rates in effect from July 1, 2015, to June 30, 2016

Cost of Works*	Fees for services defined in Articles 2.2.3, 2.2.4 and 2.2.5
Less than \$115,000	Hourly or Lump Sum Basis
\$115,000 to \$340,000	\$13,000 on first \$115,000 + 10.4% on next \$225,000
\$340,000 to \$560,000	\$36,000 on first \$340,000 + 9.5% on next \$220,000
\$560,000 to \$1,150,000	\$57,000 on first \$560,000 + 8.6% on next \$590,000
\$1,150,000 to \$2,000,000	\$108,000 on first \$1,150,000 + 7.8% on next \$850,000
\$2,000,000 to \$4,000,000	\$174,000 on first \$2,000,000 + 6.9% on next \$2,000,000
\$4,000,000 to \$10,000,000	\$312,000 on first \$4,000,000 + 6.3% on next \$6,000,000
\$10,000,000 to \$20,000,000	\$690,000 on first \$10,000,000 + 5.9% on next \$10,000,000
\$20,000,000 and over	\$1,280,000 on first \$20,000,000 + 5.4% on balance

* Exclusive of taxes.

* The value of the fees calculated does not include resident services during construction.

* The amounts associated with the classes of construction costs must be indexed annually according to the increase in the Non-residential Building Construction Price Index, as calculated by Statistics Canada.

* See notes following the tables.

3.3.4.3

Table of fees for Category III works

Rates in effect from July 1, 2015, to June 30, 2016

Cost of Works*	Fees for services defined in Articles 2.2.3, 2.2.4 and 2.2.5
Less than \$115,000	Hourly or Lump Sum Basis
\$115,000 to \$340,000	\$14,000 on first \$115,000 + 11.2% on next \$225,000
\$340,000 to \$560,000	\$39,000 on first \$340,000 + 10.4% on next \$220,000
\$560,000 to \$1,150,000	\$62,000 on first \$560,000 + 9.5% on next \$590,000
\$1,150,000 to \$2,000,000	\$118,000 on first \$1,150,000 + 8.6% on next \$850,000
\$2,000,000 to \$4,000,000	\$191,000 on first \$2,000,000 + 7.8% on next \$2,000,000
\$4,000,000 to \$10,000,000	\$347,000 on first \$4,000,000 + 6.9% on next \$6,000,000
\$10,000,000 to \$20,000,000	\$761,000 on first \$10,000,000 + 6.3% on next \$10,000,000
\$20,000,000 and over	\$1,391,000 on first \$20,000,000 + 5.9% on balance

* Exclusive of taxes.

* The value of the fees calculated does not include resident services during construction.

* The amounts associated with the classes of construction costs must be indexed annually according to the increase in the Non-residential Building Construction Price Index, as calculated by Statistics Canada.

* See notes following the tables.

3.3.4.4

Table of fees for Category IV works

Rates in effect from July 1, 2015, to June 30, 2016

Cost of Works*	Fees for services defined in Articles 2.2.3, 2.2.4 and 2.2.5
Less than \$560,000	Hourly or Lump Sum Basis
\$560,000 to \$1,150,000	\$62,000 on first \$560,000 + 10.4% on next \$590,000
\$1,150,000 to \$2,000,000	\$123,000 on first \$1,150,000 + 9.5% on next \$850,000
\$2,000,000 to \$4,000,000	\$204,000 on first \$2,000,000 + 8.6% on next \$2,000,000
\$4,000,000 to \$10,000,000	\$376,000 on first \$4,000,000 + 7.8% on next \$6,000,000
\$10,000,000 to \$20,000,000	\$844,000 on first \$10,000,000 + 6.9% on next \$10,000,000
\$20,000,000 and over	\$1,534,000 on first \$20,000,000 + 6.3% on balance

* Exclusive of taxes.

* The value of the fees calculated does not include resident services during construction.

* The amounts associated with the classes of construction costs must be indexed annually according to the increase in the Non-residential Building Construction Price Index, as calculated by Statistics Canada.

* See notes following the tables.

Notes:

- 1) The Consulting Engineer periodically issues invoices established on the prorata of the completed portion of his services and payable in accordance with the terms of Article 3.2.5.
- 2) Should a revision of the Schedule during the course of a project have the effect of increasing or decreasing the estimated, revised estimated or true value of the work, the Client and the Consulting Engineer shall agree on remuneration according to the hourly or lump sum basis of calculation to adjust the cost of the work already accomplished to the new project conditions before recalculating remuneration for services on the basis of the figures in the tables of Articles 3.3.4 and 3.3.5.
- 3) It is fully understood that application of the percentage method to services during construction is commensurate with a work duration approved by the Client and Consulting Engineer. Should the work continue beyond this time frame, the extra work thereby caused is remunerated prorata on a work duration, hourly, or lump sum basis.

- 4) The calculation of fees on a percentage basis uses the true value of the work established as per Article 3.3.2.2 for all services described in Articles 2.2.3 to 2.2.5. Any fee adjustments that may be required once the true value of the work is established shall be made on the subsequent invoices of the Consulting Engineer.

3.3.5

Application of the Percentage Basis of Calculation

3.3.5.1

Where all the services provided, as identified below, are granted to the same firm or consortium, the distribution of remuneration for each phase completed in the execution of a project corresponds to a portion of the total remuneration in accordance with the following distribution:

Service rendered	Percentage of total remuneration established according to the applicable Category from the table of percentages of Article 3.3.4
Preliminary Plans and Specifications (Article 2.2.3)	30%
Final Plans and Specifications (Article 2.2.4)	45%
Non-Resident Services During Construction (Articles 2.2.5.1 and 2.2.5.2)	25%

Where the services rendered are granted to a different firm or consortium, the distribution of remuneration shall be discussed with the Client in order to consider the supplementary efforts required by each of these firms; however, the portion attributed to the services provided during construction shall not be inferior to the amount identified in section 3.3.5.7.

3.3.5.2

Projects in phases or in lots

Should the Client decide to proceed with a project execution in phases or in lots, fees on a percentage basis for plans and specifications services and for services during construction are calculated by considering each phase or lot as a separate project, the whole increased by 7.5% to account for coordination services between phases or between lots.

3.3.5.3

Construction management

In order to take costs related to overhead and to profits normally paid to the General Contractor into account, the firm's fees are increased by 10% in the event the Client retains the services of a construction manager to carry out the project.

3.3.5.4 Contractorship in construction engineering

In construction engineering, when the services are exclusively within the Consulting Engineer's field of expertise, the total fees are increased by 10% to take the preparation of tender documents, issuance of progress payment certificates and preparation of minutes into account.

3.3.5.5 Development of an alternative for a project

When the plans and specifications have been carried out and completed on a Percentage Basis and the Client wishes that the Consulting Engineer develop an alternative for the project, the fees for the services to prepare such an alternative shall be calculated on an Hourly or Lump Sum basis.

3.3.5.6 Duplication of the project

a) Plans and specifications

When the Client wishes to duplicate the construction of works for which he retained the services of the Consulting Engineer in the original project, the fees shall be equal to 30% of the part of the fees pertaining to the preparation of the Plans and Specifications using the appropriate Table for each reuse of the Plans and Specifications, but applied to the cost of the new construction. Furthermore, for any modification of plans and specifications resulting from a change of location, the Consulting Engineer shall be remunerated on an Hourly Basis, as described in Article 3.2.

b) Services during construction

For each duplication of the works, the fee for services during construction as defined in Article 2.2.5 shall be as stipulated in Article 3.3.5.1.

3.3.5.7 Supervision of work designed by another Consulting Engineer

In the event the Client asks the firm to supply, during construction, only those services provided for in Articles 2.2.5.1 and 2.2.5.2 for work for which the plans and specifications were prepared by others, the fees shall be 30% of the fees calculated according to the applicable category in the Table of fees of Article 3.3.4.

3.3.5.8 Alteration, restoration or renovation work

For alteration, restoration or renovation work on existing buildings, the fees must be negotiated between both parties. Whenever the Percentage Basis is used, the fees are calculated in accordance with the appropriate table of Article 3.3.4 and increased by at least 50%.

3.3.5.9**Travel time**

When the Percentage Basis is used, the fees for travel time are reimbursed starting from the second hour of the return trip, in accordance with the rates established on an Hourly Basis. In no case shall the Consulting Engineer claim as travel time more hours than those normally worked in the daily schedule of his employees.

3.3.6**Reimbursable Costs**

The Consulting Engineer shall be reimbursed by the Client for all expenses properly incurred in the performance of the services, including allowable expenses.

3.3.6.1**Allowable expenses**

The Client shall reimburse to the Consulting Engineer the actual cost of all allowable expenses plus 10%.

Allowable expenses include:

- a) Living and travel expenses of the Principals and personnel of the Consulting Engineer when performing, away from their home office, tasks included in the services;
- b) Communications expenses related to the services, such as long distance telephone calls, worksite telephone services, cell phones, fax charges, and couriers;
- c) Reproduction costs related to the services, such as photocopies, printouts, CDs and DVDs, USB keys, etc.;
- d) For resident services, the cost of supply and maintenance of installations and equipment for the worksite office and costs arising due to special risks;
- e) Travel, living and moving expenses for the family of staff members, subject to Client approval;
- f) Costs related to the Consulting Engineer's professional and general third-party liability insurance currently carried or acquired in accordance with the requirements of the Client;
- g) Training sessions specifically requested by the Client.

3.3.6.2**Expenses related to computer processing and other specialized equipment**

The cost of installing and operating specialized computer processing equipment and software required by the Client for dispensing the services, other than the equipment that the Consulting Engineer normally has on hand, is reimbursable. In this case, the hourly rate applicable shall not exceed the corresponding comparable commercial rate.

3.4 | **Remuneration on a Lump Sum Basis**

3.4.1 | The Lump Sum Basis involves payment of a lump sum negotiated between the Consulting Engineer and the Client. This sum is calculated based on the estimated number of hours and expenses required to fulfill the Contract for Services, using the rates indicated for an Hourly Basis, or going by a percentage of the cost of works or proposed budget.

3.4.2 | When the Lump Sum Basis is used, the contract for services must be explicit and specific with regard to the services to be supplied, the anticipated results and the proposed schedule.

3.4.3 | With this method, any change to the scope of the services or project implies a modification of the lump sum agreed upon between the Client and the Consulting Engineer.

4.

DOCUMENTS PROVIDED

The Client shall provide the Consulting Engineer with the following plans and information, unless the Client has specifically requested that the Consulting Engineer supply some of said plans and information as part of his services, pursuant to Article 2.2.2:

- a) An accurate survey of the site showing public utilities serving said site and other facilities;
- b) Exact plans and all other relevant data on existing buildings and other existing works;
- c) All other relevant information that may affect the proposed work;
- d) A copy of all tenders and all contracts for the works for which the Consulting Engineer is responsible, and copies of all progress and final payment certificates with respect thereto, when said documents have not been prepared by the Consulting Engineer.

5. CONSULTING SERVICES

When the Consulting Engineer retains the services of consultants as part of his Contract for Services and/or is forced to resort to such services, he shall be reimbursed by the Client for the fees paid for said consultants plus 10%.

However, the Consulting Engineer shall obtain the Client's written consent prior to retaining the services of said consultants.

ANNEXE I

**TABLE OF HOURLY RATES FOR PROFESSIONAL CONSULTING
ENGINEERING SERVICES**

Classification*	Experience*	As of July 1, 2015 Fixed hourly rate (\$)''
ENGINEERS AND OTHER PROFESSIONALS''		
■ Principal 2, F+	25 years or more	266.00
■ Principal 1, F	20 to 24 years	243.00
■ Senior 2, E	15 to 19 years	205.00
■ Senior 1, D	11 to 14 years	171.00
■ Intermediate 2, C	7 to 10 years	142.00
■ Intermediate 1, B	3 to 6 years	114.00
■ Junior, A	0 to 2 years	106.00
TECHNICIANS, DRAFTSPERSONS***		
■ Principal 2, F+	25 years or	190.00
■ Principal 1, F	20 to 24 years	167.00
■ Senior 2, E	15 to 19 years	140.00
■ Senior 1, D	11 to 14 years	123.00
■ Intermediate 2, C	7 to 10 years	100.00
■ Intermediate 1, B	3 to 6 years	84.00
■ Junior, A	0 to 2 years	76.00
■ Auxiliary staff	N/A	79.00
■ Support staff	N/A	79.00

* Based on the classification established by the Réseau des ingénieurs du Québec

** The hourly rate is indexed annually to the average salary increases for each category (Survey by the Réseau des ingénieurs du Québec on the wages and salaries of Québec salaried engineers.)

*** The hourly rate is indexed on the basis of the Québec Consumer Price Index.