## Classification of Salaries of Municipal Engineers

At a recent meeting the members of the Toronto branch of the Prigineering Institute of Canada approved of the schedule prepared by the Salaries Committee of that branch. This schedule classifies engineers employed by railways, municipalities, industrial firms, large public utilities and the Public Works Department of Canada. It groups the engineers employed in these five lines of work in clear-cut classes, with non-conflicting titles, and states the qualifications deemed requisite for each class, and also states the minimum salary which, in the opinion of the members of the branch, should be paid to each class.

The classification of Municipal Engineers has been made out as follows:

## Municipal Schedule

1a. Chief Engineer of municipality greater than 300,000 population, \$12,000. Should preferably be a graduate from an engineering school recognized by the Institute, and should have had 15 years' practical experience, covering two branches in municipal engineering, and should have served for about five years in the capacity of Deputy City Engineer, or of First Assistant in municipalities of over 300,000, or as Chief Engineer in municipalities of over 100,000, and should possess proven executive ability.

1b. Chief Engineer, 100,000 to 300,000, \$8,000. Should preferably be a graduate with 10 years' experience, covering two branches in municipal engineering. Three years of his experience should be in the capacity of either one of the following: Chief Engineer in municipality of over 50,000, First Assistant in municipality of over 100,000, or Second Assistant in municipality of over 300,000. He should

possess proven executive ability.

1c. Chief Engineer, 50,000 to 100,000, \$6,600. Should preferably be a graduate with eight year's experience in municipal engineering, two years of which should be in the capacity of any one of the following: Chief Engineer in city of over 10,000, First Assistant in city less than 100,000, or Second Assistant in city under 300,000. He'should possess proven executive ability.

1d. Chief Engineer, 25,000 to 50,000, \$5,400. Should preferably be college graduate or licensed land surveyor with five years' experience in municipal engineering, and

possess proven organizing ability.

16. Chief Engineer, 10,000 to 25,000, \$4,200.. Should preferably be college graduate or licensed land surveyor with three years' experience in municipal engineering, or should have completed apprenticeship to municipal engineer, and have been subsequently placed in responsible charge of engineering work. He must have ability to handle men.

1f. Chief Engineer, less than 10,000, \$3,000. Same qualifications as for cities between 10,000 and 25,000 unless work is confined to routine construction and maintenance, in which case he should have had five years' experience as First Assisant in similar work, and should have ability to handle men.

1g. Other Municipal Engineers (employed part time), Daily Rate. Land Surveyors—requirements prescribed by law. For routine construction and maintenance, qualification to be same as for Chief Engineer of city less than 10,000. Other casual work probably done by consulting engineers.

2. Deputy City Engineer, or Principal Assistant in cities over 300,000, \$8,000. Same qualification as for Chief En-

gineer in city of from 100,000 to 300,000

3a. First Assistant having charge of (any one of the following) roadways, sewers, water works, light, transportation, structures, testing and inspection in cities over 300,000, \$5,000. Should preferably be a graduate with eight years' experience in municipal engineering, four of which should have been in the capacity of First Assistant in municipality of 100,000 to 300,000, or as Second Assistant in municipality of over 300,000. Should be able to handle office, construction and maintenance forces.

3b. First Assistant in charge of one or more departments in cities 100,000 to 300,000, \$4,000. Should preferably be a graduate with six years' experience in engineering. two years of which should have been in the capacity of First Assistant in city of less than 100,000, or as Second Assistant in city of over 100,000. Should be able to handle office, construction and maintenance forces.

3c. First Assistant in cities less than 100,000, \$3,000.

Should preferably be a graduate with four years' experience in engineering two years of which should have been in the capacity of Second Assistant, and should be able to handle office, construction and maintenance forces.

4a. Second Assistant reporting to the First Assistants in larger municipalities and to the Chief Engineer in smaller municipalities, in responsible charge design, drafting and engineering records, cities over 300,000, \$3,600. Should preferably be a graduate with six years' experience in engineering, four years of which should have been as Second Assistant in city under 300,000, or as Resident Engineer on construction with designing experience, or as Designer. Should be able to handle office staff for designing; drafting and keeping records.

4b. Second Assistant in responsible charge of design, drafting and engineering records, cities less than 300,000, \$3,000. Should preferably be a graduate with four years' experience, two years of which should have been either as Designer or as Resident Engineer on construction with designing experience. Should be able to handle office staff for designing, drafting and keeping of records.

4c. Second Assistant in responsible charge of surveys, cities over 300,000,\$3,000. Should preferably be a graduate engineer or licensed land surveyor with four years' experience as Instrument man in municipal work, preferably on construction, and should be able to handle several parties and to keep them employed to advantage.

4d. Second Assistant in responsible charge of surveys, cities less than 300,000, \$2,400. Should preferably be a graduate engineer or licensed land surveyor with two years' experience as Instrument man in municipal work, preferably on construction, and should be able to handle several parties and keep them employed to advantage.

4e. Second Assistant in responsible charge of construction, operation or maintenance (one or more), cities more than 300,000, \$3,600. Should preferably be a graduate with six years' experience in engineering, four of which should have been as Inspector or as Resident Engineer on construction, and should be able to handle construction and maintenance forces.

4f. Second Assistant in responsible charge of construction, operation or maintenance (one or more), cities less than 300,000, \$3,000. Should preferably be a graduate with four years' experience in engineering, two of which should have been as Inspector or as Resident Engineer on construction, and should be able to handle construction and maintenance forces.

5. Resident Engineer on construction, \$2,400. Should preferably be graduate with three years' experience in municipal work, or should have completed apprenticeship in municipal work. Should have ability to use survey instruments, make calculations arising therefrom, and keep track of quantities and labor.

6. Designer, \$3,000. Should preferably be a graduate with four years' experience, and should be familiar with the mathematics and practice of the branch of work in question.

7. Draughtsman, \$1,800. Should be high school or preferably a college graduate, and should be able to plot accurately from field notes and produce correct working drawings from designer's sketches and computations.

8. Inspector, \$2,100. Should have a thorough knowledge of the class of work that he is employed to inspect, and in the case of steel or reinforced concrete structures, should be a man of sufficient intelligence to understand the elementary principles of design and realize the necessity for close adherence to plans, and must be able to read and interpret plans correctly.

9. Instrument Man, \$1,800. Should be high school or preferably a college graduate and should have sufficient training in the use of level or transit, or both, to do accurate work at a reasonable rate of speed, and should be thoroughly grounded in the mathematics required for the proper reduction and application of the instrumental work. In case of construction he should understand the special requirement for the class of work in question.

10. Chairman of Rodman, \$1,200. No previous experience required.

11. Tracer. \$1,200. No previous experience required.