

# CONTRACT PROGRAMME

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## A GENERAL PART

### CHAPTER 1

## B SPECIFIC PART

### CHAPTER 2 REGULATIONS FOR PAYMENT AND METHODS OF MEASUREMENT

NATIONAL BOARD OF PUBLIC ROADS  
AND WATERWAYS 1969

NATIONAL BOARD OF PUBLIC ROADS  
AND WATERWAYS

CONTRACT PROGRAMME  
CHAPTER 1 A GENERAL PART

# CONTRACT PROGRAMME

## CHAPTER 1 A GENERAL PART

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A reference to PART B indicates that the matter concerned has been dealt with in PART B under the corresponding Item.

## 1 CONSTRUCTION SITE

1.1 Name of Site Cf. PART B

1.2 Location of Site Cf. PART B

1.3 Acquisition of Land and Permits

1.3.1 G e n e r a l

The Contractor shall acquire all areas needed for the execution of Works excluding areas specified hereinafter. The permit of the owner or holder and the approval of the Employer and, if necessary the permission of the authority of a private road must be obtained for the use of the areas. The areas shall be located and used so that traffic on public and private roads is not unnecessarily disturbed. The arrangements shall neither cause any significant disturbance to surrounding areas.

1.3.2 L a n d a n d W a t e r A r e a s

The following areas will be given at the disposal of the Contractor by the Employer free of cost:

- Right-of-way areas required by public roads incorporated in the Contract.
- Right-of-way areas needed for the construction of private roads incorporated in the Contract.
- Roadside, protection and sight distance areas of public roads incorporated in the Contract with the restrictions of usage referring to the Employer on the basis of law (Public Roads Act, Chapter 6).
- The minimum area required for the construction of structures to be built outside the right-of-way area according to Plans.

Other areas. Cf. PART B

1.3.3 P e r m i t s

The Contractor shall acquire necessary building permits for temporary buildings and auxiliary installations.

The Contractor shall deliver copies of the permits and agreements of the usage of areas acquired by him to the Employer. This shall also apply to permits and agreements of building, shift work, storage of explosives, use of speed limit signs etc. granted by authorities.

1.3.4 D e l i v e r y   o f   B u i l d i n g s   a n d   L a n d  
A r e a s   N e e d e d   f o r   U s e   o f   S a m e  
Cf. PART B

1.4 Other Clarifications Concerning Construction Site

1.4.1 W o r k s   a n d   S c h e d u l e s   o f   W o r k s   D o -  
n e   S i m u l t a n e o u s l y   O n   S i t e   b y  
O t h e r   O u t s i d e   T h i s   C o n t r a c t

As for works not included in the Contract mentioned in PART B, the Tender shall be based on specified preliminary times of execution. In course of work the Contractor shall in good time prepare a detailed schedule for works and purchases of other contractors in cooperation with the Employer and other parties concerned.

If the work is carried out in conformance with the schedule specified in PART B or with a schedule agreed during the work there is no additional payment for disturbances caused by these works. Cf. PART B

1.4.2 R e g u l a t i o n s   f o r   C o n s t r u c t i o n  
M a t e r i a l s

If it is specified in Specification or other Documents that

accepted material shall be used in the work the manufacturer and the report of the quality of the product must be submitted to the approval of the Employer. Cf. General Conditions of Contract, 66 §.

- 1.4.2.1 Materials from the road area suitable for other structures shall not be hauled to embankments without the permission of the Employer unless the Contractor is able undisputedly to prove that there is a surplus of such materials or that separating the same is unreasonable.
- 1.4.2.2 Spots within the road area examined for crushing aggregates for road pavement. Cf. PART B
- 1.4.2.3 The laboratory test results of soil surveys within the road area and at the borrow pits owned by the Employer are available for inspection at the Employer's office. Any quantities calculated by the Employer on the basis of soil surveys are shown and given without liability for the correctness of the same.
- 1.4.2.4 Materials and supplies shall be acquired in good time so that no delays in the Works are caused by the delivery of the same. If possible the times of delivery must be ensured even before the submission of Tenders.
- 1.4.2.5 The Contractor shall have no right to claim payment for quantities of material ordered by him in excess of the need set out on the Plans unless such order has resulted from a matter for which the Employer is responsible.
- 1.4.2.6 Other regulations. Cf. PART B
- 1.4.3 Structures and Areas Requiring Special Care Cf. PART B
- 1.4.4 Traffic Arrangements

Traffic arrangements not specified on Contract Documents required by public and private traffic shall be planned by the Contractor in cooperation with the Employer. The arrangements shall be planned so that traffic can throughout the construction period use existing roads or temporary detours constructed by the Contractor until new roads are opened to traffic. If necessary the Contractor shall arrange temporary intersections for estates the road connections of which have been cut off by the construction works. Cf. also Item 12.1.1.

1.4.4.1 Traffic volumes on various road sections. Cf. PART B

1.4.4.2 If the existing road is paved, temporary carriageways shall be provided with a surfacing. The type of surfacing shall be selected on the basis of the volume of traffic and the time of usage of the temporary road and it shall correspond to Ab, BS, BLS or ÖS surfacings. An agreement must be reached with the Employer on the type and thickness of surfacing separately for each case, In winter, or if temporary roads are used by traffic for less than one month carriageways may, with a separate permission of the Employer, be provided with a gravel wearing course.

1.4.4.3 Road sections on which there must be at least one lane to each direction. Cf. PART B

1.4.4.4 If a separate price has been specified for traffic arrangements during construction in the Bill of Quantities the Contractor shall indicate all expenses accruing from arrangements of traffic during construction in Item 9270 of the Bill of Quantities. (Payments, Cf. Item 7.4)

In other cases the expenses mentioned shall be included in the Contract as overheads (9200) and they must be incorporated as usual in Items 1100...1700.

1.4.5 Use and Payment for Equipment and Supplies of Employer

1.4.5.1 Barracks

If the Employer has free accommodation or other barracks, the Contractor may hire them with the conditions below:

- The Contractor shall pay for transports to and from the construction site.
  - The Contractor shall take care of repairs of damages caused during the hire period and pay for all damages to the Employer's equipment excluding those resulting from natural wear and tear.
  - The Contractor shall insure accommodation equipment against fire for their full value. Cf. General Conditions of Contract, 4 §.
  - Barracks are hired without bedclothes with normal furniture.
- Rents. Cf. PART B

1.4.5.2 Others. Cf. PART B

1.4.6 Water System and Foundation Conditions

1.4.6.1 Bridges have been planned assuming that during excavation and pouring operations foundation trenches are kept dry. Any deviations are given in PART B.

1.4.6.2 Other information. Cf. PART B

2 EXTENT OF CONTRACT AND SCOPE OF WORKS

2.1 General

The Contract comprises all Works specified on Contract Documents with auxiliary operations as set out in Paras 1 and 2 of the General Conditions of Contract.



2.1.2 The work is carried out as an overall or partial contract. Cf. PART B

2.1.3 Contract Lots Cf. PART B

## 2.2 Scope of Works

2.2.1 Bridge construction consists, among other things, of:

- the excavation in earth or rock, at embankments below the natural ground level and in cuttings below the surface of the subgrade, required by the foundation of the bridge or retaining wall. The quantity of excavation depends on the order of performance of road and bridge construction works, which is set out, if necessary on the Plans or in PART B of the Contract Programme.
- Backfilling of foundation trenches up to the level of road cross-section or the surface of the subgrade but not higher than the natural ground surface.
- Actual bridge structures.
- Guardrails with wires fixed into the bridge over the full length of the bridge.
- Acquisition and attaching of device needed for fixing, supporting or protecting pipes, cables, wires, traffic signs, lighting columns etc. into bridge structures as well as of reserving necessary openings in the bridge.
- Surfacing, if laid directly on protective concrete.
- Other works. Cf. PART B

2.2.2 Road construction consists, among other things, of:

- Removal of weak soil and replacement of material to be performed at the bridge if linked directly with the foundation works of a similar road embankment and unless otherwise provided on Contract Documents.

- Backfilling behind the bridge and backfilling of slopes.
- Covering of slopes and behind bridges.
- Other works. Cf. PART B

3 FORM OF CONTRACT

3.1 Cf. PART B

4 CONTRACT DOCUMENTS

4.1 Contract Agreement (Form confirmed by the Ministry of Communications and Public Works on January 25, 1967)

4.2 General Conditions of Contract/ January 25, 1967

4.3 Invitation to Tender and Written Clarifications Given Prior to Submission of Tenders

4.4 Contract Programme

4.4.1 Chapter 1 A General Part/1969, B Special Part

4.4.2 Chapter 2 Principles of Payment and Methods of Measurement/1969

4.5 Regulations Confirmed by State Council Cf. PART B

4.6 Special Specifications Cf. PART B

4.7 Contract Drawings Cf. PART B

4.8 General Specifications Cf. PART B

4.9 Instructions and Regulations Issued by Employer Cf. PART B

4.10 Instructions Issued by Private Organizations

4.10.1 Specifications of R I L Cf. PART B

4.10.2 Specifications of S K T Y Cf. PART B

4.10.3 Standard Specifications Cf. PART B

4.10.4 Other Regulations and Instruction  
Cf. PART B

4.11 Tender Cf. PART B

4.12 Contract Documents and additional documents made during the work will be delivered to the Contractor in not more than five copies. The Documents mentioned in Item 4.12 of PART B of the Contract Programme shall be acquired by the Contractor. Should there be changes during the work in the regulations of Documents to be acquired by the Contractor an agreement shall be reached on any cost accruing from the change as specified for alterations and additions. Cf. PART B

5 LIABILITY FOR INFORMATION GIVEN IN DOCUMENTS

5.1 General

According to Para 36 of the General Conditions of Contract the Employer shall be responsible for the accuracy of data and survey results given by him. The quantities of various types of materials indicated on the Plans and the pavement thicknesses of different road sections are not binding and consequently, the Contractor must not base his claims solely on these data.

5.2 Liability in Road Construction Works

5.2.1 The Employer shall not be held responsible for compression of soil considered normal, for after-consolidation of embankment fill and road pavement or for its consequences. Repairs of settlements on embankments resulting from construction in winter or other reasons shall be scheduled to take place prior to the construction of road pavement.

If owing to specified contract provisions the embankment and the lower part of the road pavement have to be constructed in winter, the Employer will pay for the quantity of material used for repairs of excessive settlements caused thereby in the lower part of the road pavement by using the unit price of frost-resistant embankment fill. Materials from the road area are paid for in connection with excavation works.

5.2.2 The Employer shall not be held responsible for the stability of trench slopes in connection with removal of weak soil.

### 5.3 Liability in Bridge Construction Works

5.3.1 The quantities of materials given in the Bill of Quantities of bridge construction works are not binding except for the case mentioned in Item 5.3.7.

The selection of the working method, required materials, equipment, machinery etc. to be used in connection with foundation works shall be based on the interpretation of survey results by the Contractor.

5.3.2 For elucidation of economic matters the Tenderer shall in connection with his Tender give a list of unit prices by using the enclosed form. The unit prices shall refer to fully completed works with overheads and other costs and they shall be applicable to calculations of both additions and deductions.

The unit prices referred to herein shall be used in calculating the additional payment to the Contractor and the payment to the Employer in the case that the quantity of material or work changes from that determined on the basis of the Invitation to Tender.

When preparing his Tender the Tenderer shall incorporate the price items possibly arising in connection with his working method but not mentioned in the submitted list, in the Bill of Quantities provided that soil and foundation conditions are not essentially different from those indicated in Documents attached to the Invitation to Tender.

- 5.3.3 When owing to ground conditions the level of foundation changes the alterations in the quantities of material and works shall be determined by inspections on bridge site by taking account of the changes in the quantities of material or works considered necessary or reasonable under prevailing conditions and with selected working method in accordance with the general practice in the bridge construction branch.
- 5.3.4 If contrary to the working method assumed in Item 1.4.6.1 the excavation and pouring operations of the bridge foundations must be carried out underwater or in the dry the unit prices specified in Item 5.3.2 shall be applied to calculations of additional compensations and payments.
- 5.3.5 If on the basis of piling records the overall length of piles, measured from the cut-off level specified on the Plan, deviates from that calculated on the basis of documents attached to the Invitation to Tender, the additional payment or compensation shall be calculated by multiplying the difference by the unit price specified in Item 5.3.2. In reinforced concrete piles, the length of tie steels is not included in the calculations of pile lengths.
- 5.3.6 In connection with steel structures there are no additional payments for excessive weight observed in weighing, or respectively, no compensation for a weight lower than the theoretical weight otherwise approved the comparison being made exclusively on the basis of calculated quantities. The installation price is considered fixed unless the plan is essentially changed.

5.3.7 If there are reinforcement lists attached to bridge plans, the Tender shall be based on the overall weight of concrete and prestressing steel indicated on these lists. The overall weight of steels shall be checked during the work from drawings by calculating using the average metre weights given by the manufacturer, Respectively, the Tender for steel structures shall be based on the overall weight of steel material calculated from lists of parts. Additional payments or compensations shall be calculated by using unit prices specified in Item 5.3.2.

5.3.8 The quantities of material and work calculated by the Contractor on the basis of his plans are not binding upon the Employer although such plans had been checked and approved by the Employer.

5.3.9 If excavation in rock for bridges to be founded on rock fails so that the bridge has to be replanned or that considerable changes have to be made in the Drawings and if the failure has been caused principally by the disobedience of instructions, the Contractor shall pay for the costs of changes or replanning or carry out himself the changes in a way approved by the Employer. In this case the change of plans shall not give the Contractor the right to claim a revision of Contract Price regardless of the increase in the quantities of material and work.

## 6 CONTRACT TIME

6.1 Commencement of Works Cf. PART B

6.2 Discontinuations Cf. PART B

6.3 Completion of Intermediate Stages Cf. PART B

6.4 Completion of Contract Cf. PART B

7 CONTRACT PRICE AND PAYMENTS

7.1 Payments to the Contractor shall be made for completed works, in partial contracts and overall private road contracts twice a month and in overall motorway contracts once a month or according to a Schedule of Payments agreed separately.

7.2 The Employer shall have the right without hearing the Contractor to withdraw from partial payments any due wages of workmen with related social and pension allowances and payments due to lorry drivers neglected by the Contractor.

The Employer may also withdraw amounts corresponding to undisputable payments by the Contractor due to a third party involved in this work, if the Employer may later on become responsible with respect to this third party.

In case of cancellation of the Contract the Employer shall have the right to withdraw from partial payments all due payments mentioned herein.

7.3 Changes in the cost level. Cf. PART B

7.4 If a separate price for traffic arrangements during the work has been set out in the Bill of Quantities, it shall be paid in accordance with a Schedule of Payments agreed separately.

8 ADVANCES

8.1 The advance granted is equal to the amount given by the Contractor in his Tender, however not more than 5 per cent of the Contract Price. In partial contracts, excluding separate bridge contracts, no advance will be paid.

The advance will be paid to the Contractor as soon as the work has been commenced and the Performance Bond has been given to the Employer. The advance is repaid by deducting an amount equal to double the percentage of advance from each contract invoice until

the whole advance has been refunded. In repayment of the advance the accounts of additional and alteration works are included in contract accounts.

9 SURETY AND GUARANTEE PERIOD

9.1 Surety

9.1.1 For structures listed in PART B the Contractor's surety shall be as set out in Paras 13 and 14 of the General Conditions of Contract. Cf. PART B

9.2 Guarantee Period

9.2.1 The length of the guarantee period is one year.

9.2.2 The length of the ~~guarantee~~ period for painting of steel bridges is two years.

*Onles naita, ort lema-  
topimukse etto 1 uen.*

10 BONDS

10.1 Performance Bond

The amount of Performance Bond mentioned in Para 3 of the General Conditions of Contract is 10 per cent of the Contract Price.

The Bond shall be valid:

- a) for full completion of Works in conformance with the Contract.
- b) for repayments of advances received by the Contractor.
- c) for payment of penalty.
- d) for repairs of deficiencies found during the bond period until the Bond of the ~~Maintenance~~ <sup>guarantee</sup> Period is given.
- e) for the payment of due wages of workmen and related social and pension allowances and of payments to lorry drivers not paid by the Contractor.



f) for compensating damages caused by the liability of the Contractor to a third party to whom the Employer may become responsible

The Performance Bond shall be repaid to the Contractor as soon as the work has been delivered as fully approved to the Employer, the Bond of the ~~Maintenance~~<sup>guarantee</sup> Period has been given, when advances have been repaid, any payments to the third party for whom the Employer may become responsible have been made been fulfilled or a separate surety has been given for the settlement of such claims.

### Surety of Guarantee Period

#### 10.2 Bond of Maintenance Period

The Bond shall be in accordance with Para 3 of the General Conditions of Contract excluding overall motorway and highway contracts, the Bond of which is 2 per cent of the Contract Price. The Bond shall be repaid as soon as the liabilities related to the Bond have been fulfilled.

#### 10.3 Insurances

10.3.1 In addition to the fire insurance specified in Para 4 of the General Conditions of Contract the Contractor shall insure at own cost the superstructures of steel bridges and prefabricated concrete bridges against any damages during hauling and installation. The insurance shall also cover any damages to substructures and to a third party resulting from installation works.

#### 11 PENALTY

##### 11.1 Penalty

The amount of the penalty set out in Para 18 of the General Conditions of Contract is:

Contract Price	Penalty
less than 20 000 Fmk	200 Fmk
20 000 - 50 000 Fmk	500 Fmk
50 000 - 100 000 Fmk	1 000 Fmk
100 000 - 150 000 Fmk	1 500 Fmk
150 000 - 200 000 Fmk	2 000 Fmk
200 000 - 250 000 Fmk	2 500 Fmk
250 000 - 350 000 Fmk	3 000 Fmk
350 000 - 450 000 Fmk	3 500 Fmk
450 000 - 600 000 Fmk	4 000 Fmk
600 000 - 800 000 Fmk	4 500 Fmk
800 000 - 1 000 000 Fmk	5 000 Fmk
over 1 000 000 Fmk	5 000 Fmk + 0.2 % for the part of Con- tract Price exceeding 1 000 000 Fmk

The Penalty shown in the Table means a penalty collected for each full week the work has delayed. When the Contract Time set out in the Contract is six months, the penalty of the first delayed week and when the Contract Time is more than six months, the penalty of the first two weeks is half the amount specified in the Table. There is no upper limit for the penalty. Intermediate values shall not be interpolated.

## 11.2 Specific Penalties

### 11.2.1 Penalties of Intermediate Stages

The amount of the penalty for delays in intermediate stages shall be as set out in Item 11.1 for the Contract Price of the intermediate stage. If the Contractor is obliged to pay such a penalty, this has no influence in the penalty of the delay of the whole work.

12 REGULATIONS FOR PUBLIC ORDER AND SAFETY

12.1.1 Traffic Arrangements

The Contractor shall provide necessary safety device, traffic signs etc. and take care of the maintenance of public and private roads from the commencement of Works until the work has been delivered to the Employer to the extent that additional measures and expenses are incurred to the road authority.

The Contractor shall see to it that prior to opening the road section to construction traffic an inspection be held on site between the Contractor and the road authority, in which the condition of the road is ascertained and an agreement is made on measures to be taken and on any payments to the road authority arising from the construction work. In case of a private road the inspection shall also be attended by the Employer's representative and the representative of the private road authority.

If public traffic is let to use road sections under construction all maintenance measures with accruing expenses on these road sections shall be taken by the Contractor and the construction work shall be carried out so that traffic is not significantly obstructed and that no damages are caused to vehicles.

The Employer will take care of marking the road, ploughing of snow and gritting in winter for public traffic. The Contractor shall in his area of liability keep roads in such a condition that ploughing and removal of ice can be carried out normally. Extra measures arising from roadworks such as additional gritting, complementing edge markings etc. shall be taken by the Contractor.

The Contractor shall be responsible for damages caused by negligence of road maintenance. In case of negligence by the Contractor the Employer shall have the right to take the measures needed at the Contractor's expense.

Should the Works be entirely suspended for a longer period the Contractor shall inform the Employer of such a suspension in writing in good time. Prior to suspension an agreement may be made on the delivery of such maintenance operations to the Employer as should have been carried out by the Contractor on the basis of the above regulations. If the Contractor fails to inform the Employer of the suspension, the Contractor shall still be held responsible for damages caused by deficient maintenance.

During suspensions demanded by the Employer he shall also take care at own cost of summer and winter maintenance measures required by public traffic. Cf. Item 1.4.4.

#### 12.1.2 Registration of Vehicles

All lorries used in the Works shall be registered excluding those which cannot be registered as such owing to their size. The use of latter non-registered vehicles is permitted in areas closed to public traffic. Closing of the area shall be indicated by means of adequate traffic signs. Should the route of non-registered vehicles cross or coincide with a road intended for public traffic, a separate licence shall be applied for from the Ministry of Communications and Public Works. It shall be noted that even a private road may be a road intended for public traffic.

#### 12.1.3 Conduits, Cables Etc.

The Contractor shall at own cost take the measures needed for protecting devices, structures such as surfacings, conduits, cables, etc. against damages caused by the performance of work.

In order to protect conduits and cables in the site area the Contractor shall as early as possible contact the authorities in charge of these devices or their owners and the Employer and agree on necessary measures to be taken. The Contractor shall take care of distinct setting-out of underground cables in terrain.

Uncovering of cables in connection with excavation works shall be done manually. Exposed cables shall be effectively protected against damages.

For the protection of underground cables or conduits within or in the proximity of the right-of-way area and not indicated on Contract Documents, the Contractor shall have the right to a compensation for additional costs such as costs of construction of supporting scaffoldings, protective coverings, safety measures and other arrangements which the Contractor is obliged to carry out owing to Works included in the Contract.

The above regulations shall apply to extra costs arising from damages to the devices mentioned unless such damages could have reasonably been avoided.

12.3 Other regulations Cf. PART B

13 INSPECTIONS

13.1 General

In addition to the regulations of the General Conditions of Contract concerning the tests of the quality of construction materials and supplies the following facts shall be taken into account.

13.1.1 Test specimens and samples taken by the Contractor, which may be used later, shall be taken at the presence of the Employer's representative.

13.1.2 Tests shall be made if possible either at the place of manufacture or on site or at an official research institute or at another institute approved by the Employer. The Employer presupposes that tests calling for the presence of Resident Engineer be made in Finland. For special reasons the Employer may accept sending the Resident Engineer abroad. In that case the Con-

tractor shall pay for travel expenses and daily fees stipulated in Travel Regulations.

- 13.1.3 Test results and certificates related to quality control shall be delivered to the Employer. The work that is being studied can be continued generally when test results have been approved and when the Employer has given permission to continue work on the basis of these test results.
- 13.1.4 Should the Contractor want to use new less-known materials or working methods he shall carry out at own cost all tests required by the Employer to certify the adequacy of such materials and methods.
- 13.1.5 If supplementary tests or surveys are made by the Employer owing to the fact that the Contractor has neglected to obey the regulations of Contract Documents the costs of such tests and surveys shall be borne by the Contractor.
- 13.1.6 Additional and parallel tests made by the Employer are equal to the tests made by the Contractor. The Contractor shall have the right to attend such tests.
- 13.1.7 The Employer will give the Contractor free of cost forms of the List of Publications of TVL suitable for quality control.

## 13.2 Special Tests

- 13.2.1 The Employer will make the pressure test of water mains and sewer pipes and drillings through the embankment at weak spots and according to Clause 5, Para 42 of the General Conditions of Contract, the Contractor shall give the Employer free of cost workmen, devices, equipment and supplies he has on site.
- 13.2.2 The Contractor shall carry out at own cost the X-ray tests of welding seams of bridges at spots shown by the Employer. In gen-

eral, the random sample testing method set out in Standard Specifications shall be used unless a full X-ray test is provided on the Plan for certain seams or unless otherwise provided on other Contract Documents.

- 13.2.3 The Employer will draw up the programme for test loading and arrange the performance at own cost.

The Contractor shall be liable for damages during loading unless the damage has been caused by a deficiency in the test loading programme prepared by the Employer or on the Plans provided by him for the Contract or by another default of the Employer.

If test loading is carried out owing to the fact that the Contractor has not followed the regulations of Contract Documents or if test loading is needed for ascertaining the adequacy of a structure or method proposed by the Contractor, the Contractor shall be responsible for the arrangement and costs of such test loading.

The expenses of analysing test results shall be borne by the party who has drawn up the plan for the structure.

14 EXAMINATION OF FOUNDATION SURVEYS AND MEASURES TO BE TAKEN OWING TO CHANGES IN GROUND CONDITIONS

- 14.1 The Contractor shall as soon as possible check ground conditions and inform the Employer of deviations from advance information given in Contract Documents. An agreement must be made in advance on the continuation of Works under altered conditions.

Upon the consideration of the Employer the Contractor is obliged to carry out even more thorough ground surveys for which a separate payment will be made on the cost price basis.

Finding the firm bottom by means of normal test drill or like at the foundations of bridges, culverts, columns or other similar structures is not regarded as works for which an additional payment shall be made. Any additional surveys needed for

determination of pile lengths mentioned in the General Specifications for Bridge Construction are also included in the Contract Price.

15 PREPARATION OF PLANS

- 15.1 Unless otherwise provided on Contract Documents the Employer shall acquire plans for permanent structures which shall be delivered to the Contractor as set out in Contract Documents. The plan is considered to consist of drawings and any specifications necessary or corresponding instructions.
- 15.2 The Contractor shall determine the auxiliary values needed in measurements. The Employer shall be responsible for the unambiguous determination of the location of the road and bridge and dimensions of structures and he shall deliver, if necessary the basic values at his disposal to the Contractor.
- 15.3 Checking and approving plans by one party shall not restrict or decrease the liabilities of the other party under the Contract. This shall also supply to the working plans of Item 17.5.
- 15.4 The Contractor shall check the drawings and other clarifications delivered to him by the Employer and inform the latter of the deficiencies or discrepancies he has observed.
- 15.5 In accordance with the above Item the Contractor shall check any lists of materials and supplies attached to the Plans even before ordering materials. In controversial cases the date indicated on Drawings shall be prevailing.
- 15.6 The Contractor shall plan the equipment and working methods needed in the performance of the work. Such operations are, among others, excavation, shoring and draining of foundation trenches, formwork with ties and scaffoldings, auxiliary scaffolding, haulage roads for concrete, order of welding, erection of steel and prefabricated concrete bridges.



- 15.7 The scaffolding plan shall be submitted in good time for the approval of the Employer. The Employer may also request plans for very difficult shoring and drainage of foundation trenches and for erection of major bridges as well as other plans considered important prior to the commencement of Works.
- 15.8 The use of even other prestressing methods or prestressing members deviating in size from those mentioned in the Plans is permitted. In that case the Contractor is obliged to prepare necessary alteration plans in a way accepted by the Employer. Alteration drawings need not be attached to the Tender but prestressing methods for which a usage permit is required in Finland must be mentioned.

## 16 ALTERATIONS AND ADDITIONS

### 16.1 Road Construction Works

The general principles of payment for alterations and additions included in the Contract have been specified in Item 17.4, in Item 1, Chapter 2 of the Contract Programme and in Para 67 of the General Conditions of Contract.

### 16.2 Bridge Construction Works

Changes in the Contract Price accruing from alterations and additions included in the Contract shall be calculated by using the Unit Prices given in the Bill of Quantities of Bridge Construction Works attached to the Tender. The unit price of each bridge given in the Bill of Quantities and the unit prices of the Bill of Quantities of Bridge Construction Works are fixed prices and the 25 % rule mentioned in Item 1, Chapter 2 of the Contract Programme is not applied to them.

## 17. CONDITIONS OF PARTICULAR APPLICATION

### 17.1 Labour

#### 17.1.1 N u m b e r

As far as the number of labour is concerned the plan for the use of labour shall be taken into account in the tender and it shall be followed during construction. The supervisory staff of the Employer shall be included in the overall number of labour Cf. PART B

#### 17.1.2 S e r v i c e s

Services on site shall arranged when applicable as provided in the Decision of the State Council (No. 194/1966) including the regulations for services on sites of State, however, so that regulations for health services of labour are not applied to the Contractor. The visits home set out in the Employment Act will be paid for by the Employer. Accommodation, office and other temporary buildings shall conform to reasonable esthetic standards.

#### 17.1.3 E n g a g e m e n t

Prior to commencement of Works the Contractor shall contact the Chief of the Labour District. Cf. PART B

### 17.2 Allowances

The Tenderer shall take the restrictions of funds used for the work into account. The costs of supervision will be paid from funds whereas the advance is paid separately. Cf. PART B

### 17.3 Working Time

Only in exceptional cases working on free Saturdays and festival days is possible with the permission of the Employer. In such cases an agreement must be made in good time with the Employer on the arrangement of supervision and the Contractor shall pay for extra costs so incurred to the Employer. As for the daily working time account shall be taken of the fact that

surfacing operations can be started not earlier than one hour before sunrise and that the works must be finished not later than one hour after sunset.

#### 17.4 Cost Price

In works based on cost price the rents of machines used shall be calculated in compliance with the current list of maximum rents of hired machines of the National Board of Public Roads and Waterways. The prices given in the List include an overhead cost addition. Haulage costs shall be calculated in accordance with the latest issue of the report of the Committee of Level of Earnings of Lorry Drivers added with overhead costs.

#### 17.5 Working Plans

17.5.1 The Contractor shall prepare a Working Plan for the whole Works and submit it to the approval of the Employer, in overall contracts not later than one month and in partial contracts not later than two weeks after the commencement of Works. The Working Plan shall include a schedule of the progress of Works drawn up in a sufficiently large scale, if expedient in the form of a road progress diagram.

The Working Plan shall include the following information:

- the progress of work in time and quantity at an accuracy of one construction stage
- financing needs by month for the year of commencement of Works and for the year after, and for subsequent years by construction month and by year
- labour for the first and next year by month and for subsequent years by month of construction and by year

17.5.2 The Contractor shall each year before November 1st, submit the Working Plan mentioned in Item 17.5.1 in a revised form to the approval of the Employer. In the revised Working Plan the need for financing and the number of labour shall be given by month for the following calendar year.

17.5.3 Should there be changes in financing and labour in the revised Working Plan mentioned in Item 17.5.2 the Contractor shall, at the latest two (2) months before the end of each construction period submit to the Employer a suggestion for changes during next construction period.

17.5.4 The Contractor shall draw up a revised Working Plan covering separately each construction period and submit the plan to the approval of the Employer not later than ten (10) days before the start of the construction period.

The Working Plan shall contain the following information:

- progress of works in time and quantity by month at an accuracy of a project
- financing needs by month
- labour by month

17.5.5 In all the above-mentioned Working Plans the Contractor shall take the financing and labour restrictions imposed in the Contract into account. The financing needs corresponding to the quantities of work executed shall not exceed funds available annually or financing of the revised Working Plan of the construction period.

Depending on the Contract Time the regulations of Item 17.5 shall be followed, when applicable, in partial contracts.

17.6 Supervision Cf. PART B

17.7 Supervisory Staff

In works carried out as overall contracts there shall be a Construction Chief on site who shall have at least the education of an engineer and who is adequately competent in this work. The responsible foreman of the site shall be a person graduated at least from a technical school or have similar education and experience. The Construction Chief and the Foreman shall be approved by the Employer.

Regulations given in the General Specifications and Standards of Bridge Construction Works for foremen of bridgeworks shall also be taken into account.

Exceptions. Cf. PART B

17.8 Machines

The Contractor shall use in the work all machines and equipment needed in the execution of Works in compliance with the Contract.

17.9 Exceptions and more detailed regulations for the general principles of Chapter 2 of the Contract Programme and the detailed principles of payment and methods of measurement. Cf. PART B

17.10 Earthmoving Plan

Earthmoving plans of road construction works prepared by the planner, on which the mass computations are based are guiding. Cf. Item 5.1

17.11 Notices of Labour and Machines

The Contractor shall, at dates given during the work, deliver to the Employer notices of labour and machines as stipulated by supervisory staff.

17.12 Other Special Regulations Cf. PART B

18 TENDER

18.1 General

18.1.1 The Tenderer shall make no additions, changes or omissions in the Documents attached to the Invitation to Tender.

18.1.2 The Tender shall be based on Documents mentioned in Item 4 of this Contract Programme. In addition to the Tender specified in the Invitation to Tender, the Tenderer may submit his suggestion

for engineering structures in a form of an alternative Tender. In that case an acceptable plan with prices shall be given for the alternative in connection with the Tender.

In the alternative Tender clarifications and information shall be clearly and unambiguously specified and the documents of the alternative Tender shall be drawn up in so detailed a form that the Tender based on the same can as such be handled and compared with other Tenders.

- 18.1.3 The Tenderer may request and the Employer may even otherwise deliver changes, additional clarifications and interpretations to Contract Documents. Such requests shall be given in writing not less than ten (10) days before the deadline of the Tender. If necessary the Employer will give his reply jointly to all Tenderers at least five (5) days before the deadline. In the Tender, Tenderers shall inform of the receipt of additional clarifications. Verbal clarifications and notices are not binding.
- 18.1.4 The Tender may be cancelled by letter or telegram if the cancellation has been received by the Employer before the deadline mentioned in the Invitation to Tender.
- 18.1.5 The Tender is binding and valid for three (3) months from the deadline set out in the Invitation to Tender. Nevertheless, the Tender becomes invalid on the receipt by the Tenderer of the Employer's written notice mentioned in Item 18.3.6 hereinafter.

## 18.2 Preparation of Tender

- 18.2.1 The Tenderer shall acquire all data and documents considered necessary by him over those mentioned herein for the preparation of his Tender.
- 18.2.2 The Tenders for bridges shall be based on the specified overall pile lengths. Cf. PART B

- 18.2.3 The Tender shall be drawn up using exactly the enclosed Form of Tender and by
- pricing the Bill of Quantities
  - filling and, if necessary complementing the attached Unit Price List to be used in the alteration and additional bridge-works.
- 18.2.4 The tota given on the summary page of the priced Bill of Quantities shall be the same as the corresponding Tender Price given in the Tender Letter Invitation to Tender. If this is not the case, the Unit Prices of the Bill of Quantities shall be prevailing and the Tender Price calculated from them, not changing quantities, shall be considered the Tender Price. If no unit price has been given for an Item of the Bill of Quantities to be priced and if there is neither a specified sum at the Item concerned, the Item is considered equal to zero both for the unit price and the sum.
- 18.2.5 Each document of the Tender shall be separately dated and signed by the Tenderer. Furthermore, there shall be a certificate of the authority of the undersigned attached to documents as well as a clarification (extract from a register of companies or like) of the right of the undersigned to write the name of the Tenderer in case the latter is a corporation.
- 18.2.6 The Tender may be given either for one or more contact lots separately for each or by combining lots as shown in the Form of Tender.
- 18.2.7 If the Tender is submitted by a joint venture such a joint venture must be established before the submission of the Tender and the clarification of the documents of establishment shall be attached to the Tender.

### 18.3 Treatment of Tenders

- 18.3.1 Regulations given in the Finnish Collection of Statutes 385/61 and 386/61 shall be followed in treatment of Tenders.

- 18.3.2 All Tenders may be rejected. Cf. Collection of Statutes 385/61, Para 9.
- 18.3.3 The Unit Price given in the Tender shall be in correct proportion to the expenses of works. In case of obvious disproportion in this respect the Employer shall be entitled to reject the Tender.
- 18.3.4 For treatment of Tenders the Tenderer shall give the Employer necessary additional clarifications needed in the comparison and examination of Tenders.
- 18.3.5 Tenders received after the deadline will be returned unopened.
- 18.3.6 After signing of the Contract and submission and approval of the Performance Bond, the Employer will inform the Tenderers of the Contractor, Contract Price and the Tender Prices of other Tenders.
- 18.4 Documents Attached to Invitation to Tender
- 18.4.1 The documents attached to the Invitation to Tender are given in the letter of invitation.
- 18.4.2 Drawings marked with x in the List of Drawings will not be attached to the Invitation to Tender. These Drawings are available for inspection at the Employer's office.
- 18.4.3 Informative clarifications included in the Invitation to Tender are not binding upon the Employer. Cf PART B
- 18.4.4 The documents attached to the Invitation to Tender shall be returned in one week from the deadline of Tenders or a separate stamp-fee shall be paid for the same.

*x) Taulukon liitteiden asemestilastuuden  
pöytäkirja. Pausenfi sanonta.*



