

# **GENERAL PROVISIONS**

**For**

## **SAGINAW COUNTY ROAD COMMISSION**

**Prepared by:**

Saginaw County Road Commission

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## **GENERAL PROVISIONS**

### **Section 10 - Definition of Terms**

Whenever the following terms are used in these specifications, in the contract, in the documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be interpreted as follows:

10-1 AASHTO

The American Association of State Highway and Transportation Officials, the successor to AASHTO.

10-2 Advertisement

A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.

10-3 ASTM

The American Society for Testing and Materials.

10-4 Award

The acceptance by the owner, of the successful bidder's proposal.

10-5 Bidder

Any individual, partnership, form of corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.

10-6 Calendar Day

Every day shown on the calendar.

10-7 Change Order

A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for the work affected by such changes. The work covered by a change order shall be within the scope of the contract.

10-8 Contract

A written agreement covering the work to be performed. The awarded contract shall include, but not be limited to: The Advertisement; The Contract Form; The Proposal; The Performance Bond; The Plans; and any addenda issued to the bidders.

10-9 Contract Item (Pay Item)

A specific unit of work for which a price is provided in the contract.

10-10 Contract Time

The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar working days, the contract shall be completed by that date.

10-11 Contractor

The individual, partnership, form or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who act directly or through lawful agents or employees to complete the contract work.

#### 10-12 Drainage System

The system of pipes, ditches and structures by which surface or subsurface waters are collected and conducted to an acceptable outlet.

#### 10-13 Engineer

An individual, partnership, firm or corporation duly authorized by the Owner to be responsible for engineering supervision of the contract work and acting directly or through an authorized representative.

#### 10-14 Equipment

All machinery, together with the necessary supplies for the upkeep and maintenance, and also all tools and apparatus necessary for the proper construction and acceptable completion of the work.

#### 10-15 Extra Work

An extra item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Engineer to be necessary to complete the work within the intended scope of the contract as previously modified.

#### 10-16 Federal Specification

The Federal Specifications and Standards, and supplements, amendments, and indices thereto are prepared and issued by the General Services Administration of the Federal Government. They may be obtained from the Specifications Activity, Printed Materials Supply Division, Building 197, Naval Weapons Plant, Washington, D.C., 20407.

#### 10-17 Inspector

An authorized representative of the Engineer assigned to make all necessary inspections and/or tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.

#### 10-18 Intention of Terms

Whenever, in these specifications or on the plans, the word "directed", "required", "permitted", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the direction, requirements, permission, order, designation or prescription of the Engineer is intended; and similarly, the words "approved", "acceptable", "satisfactory", or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer, subject in each case to the final determination of the Owner.

Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.

#### 10-19 Laboratory

The official testing laboratories of the Owner or such other laboratories as may be designated by the Engineer.

#### 10-20 Major and Minor Contract Items

A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 10 percent (10%) of the total amount of the awarded contract. All other items shall be considered minor contract items.

#### 10-21 Materials

Any substance specified for use in the construction of the contract work.

#### 10-22 Notice to Proceed

A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.

10-23 Owner (Sponsor)

The term owner shall mean the party of the first part or the contracting agency signatory to the contract.

10-24 Pavement

The combined surface course, base course, and subbase course, if any, considered as a single unit.

10-25 Payment Bond

The approved form of security furnished by the Contractor and their surety as a guarantee that he/she will pay in full all bills and accounts for materials and labor used in the construction of the work.

10-26 Performance Bond

The approved form of security furnished by the Contractor and their surety as a guarantee that the Contractor will complete the work in accordance with the terms of the contract.

10-27 Plans

The official drawings or exact reproductions, approved by the Engineer, which show the location, character, dimensions and details of the work to be done and which are to be considered as a part of the contract, supplementary to the specifications.

10-28 Project

The agreed scope of work for accomplishing specific Public Works improvements as specified in the contract.

10-29 Proposal

The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.

10-30 Proposal Guarantee

The security furnished with a proposal to guarantee that the bidder will enter into a contract if their proposal is accepted by the Owner.

10-31 Specifications

A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.

10-32 Structures

Facilities such as bridges; culvert; catch basins; inlets; retaining walls; cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting, building; vaults; and other manmade features that may be encountered in the work and not otherwise classified herein.

10-33 Subgrade

The soil which forms the pavement foundation.

10-34 Superintendent

The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the Engineer, and who shall supervise and direct the construction.

10-35 Supplemental Agreement

A written agreement between the Contractor and the Owner covering:

10-35 Supplemental Agreement (cont.)

1. work that would increase or decrease the total amount of the awarded contract, or any major contract item, by more than 25 percent (25%), such increased or decreased work being within the scope of the originally awarded contract, or
2. Work that is not within the scope of the originally awarded contract.

10-36 Surety

The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds which are furnished to the Owner by the Contractor.

10-37 Work

The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans and specifications.

10-38 Working Day

A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least 6 hours toward completion of the contract. Unless work is suspended for causes beyond the Contractor's control, Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work, requiring the presence of an inspector, or the Engineer, will be considered as working days.

## **Section 20**

### **Proposal Requirements and Conditions**

#### 20-1 Advertisement (Notice to Bidders)

#### 20-2 Pre qualification of Bidders

Each bidder shall furnish the Owner satisfactory evidence of their competency to perform the proposed work. Such statements covering the bidder's past experience on similar work, a list of equipment that would be available for the work, and a list of key personnel that would be available.

#### 20-3 Contents of Proposal Forms

The Owner shall furnish bidders with proposal forms. All papers bound with or attached to the proposal forms are necessary parts and must not be detached.

The plans, specifications, and other documents designated in the proposal form shall be considered a part of the proposal whether attached or not.

#### 20-4 Issuance of Proposal Forms

The Owner reserves the right to refuse to issue a proposal form to a prospective bidder should such bidder be in default for any of the following reasons:

1. Failure to comply with any pre qualification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.
2. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force (with the Owner) at the time the Owner issues the proposal to a prospective bidder.
3. Contractor default under previous contracts with the Owner.
4. Unsatisfactory work on previous contracts with the Owner.

#### 20-5 Interpretation of Estimated Proposal Quantities

An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the Proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly or by implication agree that the actual quantities involved will correspond exactly therewith nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as hereinafter provided in the subsection title ALTERATION OF WORK AND QUANTITIES of Section 40 without in any way invalidating the unit bid prices.

#### 20-6 Examination of Plans, Specifications and Site

The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. He/she shall satisfy himself as to the character, quality, quantities or work to be performed, materials to be furnished, and as to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the proposed contract, plans, and specifications.

#### 20-6 Examination of Plans, Specifications and Site (Cont.)

Boring logs and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the Owner's design and estimating purposes only. Such information has been available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which he/she may make or obtain from their examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.

#### 20-7 Preparation of Proposal

The bidder shall submit their proposal on the forms furnished by the Owner. All blank spaces in the proposal forms must be correctly filled in where indicated, for each and every item for which a quantity is given. The bidder shall state the price (written in ink or typed) both in words and numerals for which he/she proposes to do each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

The bidder shall sign their proposal correctly and in ink. If the proposal is made by an individual, their name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the State under the laws of which the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of their authority to do so and that the signature is binding upon the firm or corporation.

#### 20-8 Irregular Proposals

Proposals shall be considered irregular for the following reasons:

1. If the proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered, or if any part of the proposal form is detached.
2. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind which make the proposal incomplete, indefinite, or otherwise ambiguous.
3. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.
4. If the proposal contains unit prices that are obviously unbalanced.
5. If the proposal is not accompanied by the proposal guarantee specified by the Owner.

#### 20-9 Proposal Guarantee

Each separate proposal shall be accompanied by a certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such check, or collateral, shall be made payable to the Owner.

#### 20-10 Delivery of Proposal

Each proposal submitted shall be placed in a sealed envelope plainly marked with the project name/number, location of the work, and name and business address of the bidder on the outside. When sent by mail, preferably registered, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. No proposal will be considered unless received at the place specified in the advertisement before the time for opening all bids. Proposals received after the bid opening time shall be returned to the bidder unopened.

20-11 Withdrawal or Revision of Proposals

A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the Owner in writing or by telegram before the time specified for opening bids. Revised proposal must be received at the place specified in the advertisement before the time specified for opening bids.

20-12 Public Opening of Proposals

Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.

20-13 Disqualification of Bidders

A bidder shall be considered disqualified for any of the following reasons:

1. Submitting more than one proposal from the same partnership, firm or corporation under the same or different name.
2. Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner until any such participating bidder has been reinstated by the Owner as a qualified bidder.
3. If the bidder is considered to be in "default" for any reason specified in the subsection titled ISSUANCE OF PROPOSAL FORMS of this section.

## **Section 30**

### **Award and Execution of Contract**

#### 30-1 Consideration of Proposals

After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in numbers, the unit price written in words shall govern.

Until the award of a contract is made, the Owner reserves the right to reject any or all proposals; waive technicalities, if such waiver is in the best interest of the Owner and is in conformance with applicable State and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the Owner's best interest.

1. If the proposal is irregular as specified in the subsection titled IRREGULAR PROPOSALS of Section 20.
2. If the bidder is disqualified for any of the reasons specified in the subsection titled DISQUALIFICATION OF BIDDERS of Section 20.

#### 30-2 Award of Contract

The award of a contract, if it is to be awarded, shall be made within 30 calendar days of the date specified for publicly opening proposals, unless otherwise specified herein.

Award of the contract shall be made by the Owner to the lowest, qualified bidder whose proposal conforms to the cited requirements of the Owner.

#### 30-3 Cancellation of Award

The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guarantee, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with the sub-section titled APPROVAL OF CONTRACT of this section.

#### 30-4 Return of Proposal Guarantee

All proposal guarantees, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as herein before specified in the subsection titled CONSIDERATION OF PROPOSALS of this section. Proposal guarantees of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guarantee will be returned. The successful bidder's proposal guarantee will be returned as soon as the Owner receives the contract bonds as specified in the subsection titled REQUIREMENTS OF CONTRACT BONDS of this section.

#### 30-5 Requirements of Contract Bonds and Insurance

Performance and Payment Bonds Will Not Be Required On This Project. The bidder to whom the contract is awarded at the time of execution of the contract must deposit with the Owner a Performance and Payment Bond (form attached) in the sum equal to one hundred percent (100%) of the amount of the contract awarded, guaranteeing the faithful performance of the contract and the payment of all labor, materials, rentals, etc. The Surety shall be acceptable to

### 30-5 Requirements of Contract Bonds and Insurance (Cont)

the Sponsor. The Bonder shall be licensed to do business in the State of Michigan. A separate payment and performance bond will be required for each contract in excess of \$100,000.00. The Surety shall furnish a copy of their Power of Attorney in conjunction with the executed bonds.

The bidder to whom the contract is awarded shall furnish proof of insurance or a protective liability policy naming the Commission and Saginaw Township as insured or additional insured for the term of this contract for \$1,000,000.00 personal injury and \$500,000.00 property damage for operations of this contract. Such insurance must be with a carrier acceptable to the Commission and cover a period not less than the term of this contract and shall provide that it cannot be canceled without ten (10) days advance written notice by certified mail with return receipt required to the Commission. See Special Provision for Insurance requirements.

### 30-6 Execution of Contract

The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return such signed contract to the Owner, along with the fully executed surety bond or bonds, specified in the subsection titled REQUIREMENTS OF CONTRACT BONDS of this section, within 10 calendar days from the date mailed or otherwise delivered to the successful bidder. If the contract is mailed, special handling is recommended.

### 30-7 Approval of Contract

Upon receipt of the contract and contract bond or bonds that have been executed by the successful bidder, the Owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the fully executed contract to the Contractor. Delivery of the fully executed contract to the Contractor shall constitute the Owner's approval to be bound by the successful bidder's proposal and the terms of the contract.

### 30-8 Executed Contracts

Each contract shall be executed in four original counterparts of the Contractor's performance bond and payment bond in equal number to the executed original counterparts of the contract. Three copies of such executed documents will be retained by the Owner and one copy will be delivered to the Contractor. The cost of executing the bonds, and contract and insurance, including all notaries fees and incidental expenses, are to be paid by the Contractor to whom the contract is awarded.

### 30-9 Failure to Execute Contract

Failure of the successful bidder to execute the contract and furnish an acceptable surety bond or bonds within the 10 calendar day period specified in the subsection titled REQUIREMENTS OF CONTRACT BONDS of this section shall be just cause for cancellation of the award and forfeiture of the proposal guarantee, not as a penalty, but as liquidation of damages to the Owner.

## **Section 40**

### **Scope of Work**

#### 40-1 Intent of Contract

The intent of the contract is to provide for construction and completion, in every detail, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

#### 40-2 Alteration of Work and Quantities

The Owner reserves and shall have the right to make such alterations in the work as may be necessary or desirable to complete the work originally intended in an acceptable manner. Unless otherwise specified herein, the Engineer shall be and is hereby authorized to make such alterations in the work as may increase or decrease the originally awarded contract quantities, provided that the aggregate of such alterations does not change the total contract cost or the total cost of any major contract item by more than 25 percent (total cost being based on the unit prices and estimated quantities in the awarded contract.) Alterations which do not exceed the 25 percent limitation shall not invalidate the contract nor release the surety, and the contractor agrees to accept payment for such alterations as if the altered work had been a part of the original contract. These alterations which are for work within the general scope of the contract shall be covered by "Change Orders" issued by the Engineer. Change orders for altered work shall include extensions of contract time where, in the Engineer's opinion, such extensions are commensurate with the amount and difficulty of added work.

Should the aggregate amount of altered work exceed the 25 percent limitation herein before specified, such excess altered work shall be covered by supplemental agreement. If the Owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.

All supplemental agreements shall require consent of the Contractor's surety and separate performance and payment bonds.

#### 40-3 Omitted Items

The Engineer may, in the Owner's best interest, omit from the work any contract item, except major contract items. Major Contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with the subsection titled "PAYMENT OF OMITTED ITEMS" of Section 90.

#### 40-4 Extra Work

Should acceptable completion of the contract require the Contractor to perform an item of work for which no basis of payment has been provided in the original contract or previously issued change orders or supplemental agreements, the same shall be called Extra Work. Extra work that is within the general scope of the contract shall be covered by written change order. Change orders for such extra work shall contain agreed unit prices for performing the change order in accordance with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the Engineer's opinion, is necessary for completion of such extra work.

#### Extra Work (Cont.)

When determined by the Engineer to be in the Owner's best interest, he/she may order the Contractor to proceed with extra work by force account as provided in the subsection title PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK of Section 90.

Extra work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a Supplemental Agreement as herein before defined in the subsection titled SUPPLEMENTAL AGREEMENT of Section 10.

Any claim for payment of extra work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the Owner.

#### 40-5 Maintenance of Traffic

It is the explicit intention of the contract that the safety of the public, as well as the Contractor's equipment and personnel, is the most important consideration. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of vehicular and pedestrian traffic with respect to their own operations and the operations of all their subcontractors as specified in the subsection titled LIMITATION OF OPERATIONS of Section 80.

With respect to their own operations and the operations of all their sub-contractors, the contractor shall provide marking, lighting, and other acceptable means of identifying: personnel; equipment; vehicles; storage area; and any work area or condition that may be hazardous to the operation of police, fire-rescue equipment, or ambulance on street right-of-ways.

When the contract required the maintenance of vehicular traffic on an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans and specifications, the Contractor shall keep such road, street, or highway open to all traffic and shall provide such maintenance as may be required to accommodate traffic unless otherwise specified. The Contractor shall furnish, erect and maintain barricades, warning signs, flagmen, and other traffic control devices in reasonable conformity with the Michigan Manual of Uniform Traffic Control Devices for Street and Highways (published by the Michigan Engineer of Transportation in conjunction with the United States Government Printing Office), unless otherwise specified herein. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways.

The Contractor shall make their own estimate of all labor, materials, equipment and incidentals necessary for providing the maintenance of vehicular traffic as specified in this subsection.

The cost of maintaining the vehicular traffic specified in this subsection shall not be measured paid for directly, but shall be included in the various contract items.

#### 40-6 Removal of Existing Structures

All existing structures encountered within the established lines, grades or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Engineer shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the Engineer in accordance with the provisions of the contract.

#### 40-6 Removal of Existing Structures (Cont.)

Except as provided in the subsection titled RIGHTS IN AND USE OF MATERIALS FOUND IN THE WORK of this section, it is intended that all existing materials or structures that may be encountered (within the lines, grades or grading sections established for completion of the work) shall be utilized in the work as otherwise provided for in the contract and shall remain the property of the Owner when so utilized in the work.

#### 40-7 Rights In and Use of Materials Found in the Work

Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be either embankment or waste, the CONTRACTOR may at their option either:

1. Use such material in another contract item, provided such use is approved by the Engineer and is in conformance with the contract specifications applicable to such use; or,
2. Remove such material from the site, upon written approval of the Engineer; or,
3. Use such material for their own temporary construction on site; or,
4. Use such material as intended by the terms of the contract.

Should the Contractor wish to exercise option (1), (2), or (3), he/she shall request the Engineer's approval in advance of such use.

Should the Engineer approve the Contractor's request to exercise option (1), (2), or (3), the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at their own expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in construction embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the contract work. The Contractor shall not be charged for their use of such material so used in the work or removed from the site.

Should the Engineer approve the Contractor's exercise of option (1), the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.

It is understood and agreed that the Contractor shall make no claim for delays by reason of their exercise of option (1), (2), or (3).

The Contractor shall not excavate, remove or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans or specifications.

#### 40-8 Final Cleaning Up

Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. He/she shall cut all brush and woods within the limits indicated and shall leave and site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of such property owner.

## **Section 50 Control of Work**

### 50-1 Authority of the Engineer

The Engineer shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, and as to the manner of performance and rate of progress of the work. He/she shall decide all questions which may arise as to the interpretation of the specifications or plans relating to the work, the fulfillment of the contract on the part of the contractor, and the rights of different Contractors on the project. The Engineer shall determine the amount and quality of the several kinds of work performed and materials furnished which are to be paid for under the contract.

### 50-2 Conformity with Plans and Specifications

All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans or specifications.

If the Engineer finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications but that the portion of the work affected will, in their opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, he/she will advise the Owner of their determination that the affected work be accepted and remain in place. In this event, the Engineer will document their determination and recommend to the Owner a basis of acceptance which will provide for an adjustment in the contract price for the affected portion of the work. The Engineer's determination and recommend contract price adjustments will be based on good engineering judgment and such test or retests of the affected work as are, in their opinion, needed. Changes in the contract price shall be covered by contract modifications (change order or supplemental agreement) as applicable.

If the Engineer finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor, in accordance with the Engineer's written orders.

For the purpose of this subsection, the term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans and specifications. The term shall not be construed as waiving the Engineer's right to insist on strict compliance with the requirements of the contract, plans and specifications during the Contractor's prosecution of the work, when, in the Engineer's opinion, such compliance is essential to provide an acceptable finished portion of the work.

For the purpose of this subsection, the term "reasonably close conformity" is also intended to provide the Engineer with the authority to use good engineering judgment in their determinations as to acceptance of work that is not in strict conformity but will provide a finished product equal to or better than that intended by the requirements of the contract, plans and specifications.

### 50-3 Coordination of Contract, Plans, and Specifications

The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of a discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, and cited standards for materials or testing; contract general provisions shall govern over plans, and cited standards for materials or testing; plans shall govern over cited standards for materials or testing.

#### Coordination of Contract, Plans, and Specifications (Cont.)

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, he/she shall immediately call upon the Engineer for their interpretation and decision, and such decision shall be final.

#### 50-4 Cooperation of Contractor

The Contractor will be supplied with three copies each of the plans and specifications. He/she shall have available on the work site at all times sufficient copies of the plans and specifications. Additional copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and he/she shall cooperate with the Engineer and their Inspectors and with other Contractors in every way possible. The Engineer shall allocate the work and designate the sequence of construction in case of controversy between Contractors. The Contractor shall have a competent superintendent on the work at all times who is fully capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Engineer or their authorized representative.

#### 50-5 Cooperation between Contractors

The Owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct their work so as not interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each contractor involved shall assume all liability, financial or otherwise, in connection with their contract and shall protect and save harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced by him because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange their work and shall place and dispose of the materials being used so as not to interfere with the operations of the other Contractors within the limits of the same project. He/she shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

#### 50-6 Construction Layout and Stakes

Prior to construction, the Engineer will furnish the Contractor horizontal and vertical control at the various locations necessary to complete this project.

The Contractor will be required to furnish all lines, grades and measurements from the control pins necessary for the proper prosecution and control of the work contracted for under these specifications.

The Contractor must give weekly copies of the survey notes to the Engineer so that the Engineer may check them as to accuracy and method of staking. All areas that are staked by the Contractor must be checked and approved by the Engineer prior to beginning any work in the area. The Engineer will make periodic checks of the grades and alignment set by the Contractor. In case of error on the part of the Contractor, or their employees, resulting in establishing grades and/or alignment that are not in accordance with the plans or as established by the Engineer, all construction not in accordance with the established grades and/or alignment shall be replaced without additional cost to the Owner. No direct payment will be made for this labor, materials or other expenses therewith. The cost thereof shall be included in the price of the bid for the various items of the contract.

#### 50-7 Automatically Controlled Equipment

Whenever batching or mixing plant equipment is required to be operated automatically under the contract and a breakdown or malfunction of the automatic controls occurs, the equipment may be operated manually or by other methods for period of 48 hours following the breakdown or malfunction, provided this method of operations will produce results which conform to all other requirements of the contract.

#### 50-8 Authority and Duties of Inspectors

Inspectors employed by the Owner shall be authorized to inspect all work done and all material furnished. Such inspections may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. Inspectors are not authorized to revoke, alter or waive any provision of the contract. Inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.

Inspectors employed by the Owner are authorized to notify the Contractor or their representative of any failure of the work or materials to conform to the requirements of the contract, plans or specifications and to reject such non-conforming materials in question until such issues can be referred to the Engineer for their decision.

#### 50-9 Inspection of the Work

All materials and each part of detail of the work shall be subject to inspection by the Engineer. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the Engineer requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Any work done or materials used without supervision or inspection by an authorized representative of the Owner may be ordered removed and replaced at the Contractor's expense unless the Owner's representative failed to inspect after having been given reasonable notice in writing that the work was to be performed. Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the Owner, authorized representatives of the owners of such facilities shall have the right to inspect such work. Such inspections shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

#### 50-10 Removal of Unacceptable and Unauthorized Work

All work which does not conform to the requirements of the contract, plans and specifications will be considered unacceptable, unless otherwise determined acceptable by the Engineer as provided in the subsection titled CONFORMITY WITH PLANS AND SPECIFICATIONS of this section.

Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of the subsection titled CONTRACTOR'S RESPONSIBILITY FOR WORK of Section 70. No work shall be done without lines and grades having been given by the Engineer. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the plans or as given, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

#### 50-11 Load Restrictions

The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage which may result from the moving of material or equipment.

The operations of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base or structure before the expiration of the curing period. The Contractor shall be responsible for all damage done by their hauling equipment and shall correct such damage at their own expense.

#### 50-12 Maintenance during Construction

The Contractor shall maintain the work during construction and until the work is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

#### 50-13 Failure to Maintain the Work

Should the Contractor at any time fail to maintain the work as provided in the subsection titled MAINTENANCE DURING CONSTRUCTION of this section, the Engineer shall immediately notify the Contractor of such non-compliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

#### 50-14 Final Acceptance

Upon due notice from the Contractor of presumptive completion of the entire project, the Engineer and the Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be completed in accordance with the contract, plans and specifications, such inspection shall constitute the final inspection. The Engineer shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the Engineer will make the final acceptance as of the date of final inspection.

#### 50-15 Claims for Adjustment and Disputes

If for any reasons the Contractor deems that additional compensation is due him for work or materials not clearly provided for in the contract, plans or specifications or previously authorized as extra work, he/she shall notify the Engineer in writing of their intention to claim such additional compensation before he/she begins the work on which he/she bases the claim. If such notification is not given or the Engineer is not afforded proper opportunity by the Contractor for keeping strict account of actual costs as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the Engineer has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days.

50-15 Claims for Adjustment and Disputes (Cont.)

submit their written claim to the Engineer who will present it to the Owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

## **Section 60**

### **Control of Materials**

#### 60-1 Source of Supply and Quality Requirements

The materials used on the work shall conform to the requirements of the contract, plans and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed.)

In order to expedite the inspection and testing of materials, the Contractor shall furnish complete statements to the Engineer as to the origin, composition and manufacture of all materials to be used on the work. Such statements shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the Engineer's option, materials may be approved at the source of supply before delivery is started. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

#### 60-2 Samples, Test and Cited Specifications

All materials used in the work shall be inspected, tested and approved by the Engineer before incorporation in the work. Any work in which untested materials are used without approval or written permission of the Engineer shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for, and , if directed by the Engineer, shall be removed at the Contractor's expense. Unless otherwise designated, tests in accordance with the cited standard methods of AASHTO or ASTM which are current on the date of advertisement for bids will be made by and at the expense of the Owner. Samples will be taken by a qualified representative of the Owner. All materials being used are subject to inspection, test or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at this request.

#### 60-3 Certification of Compliance

The Engineer may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's certificates of compliance stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

The form and distribution of certificates of compliance shall be as approved by the Engineer.

When a material or assembly is specified by "brand name or equal" and the Contractor elects to furnish the specified "brand name," the Contractor shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

1. Conformance to the specified performance, testing, quality or dimensional requirements; and,
2. Suitability of the material or assembly for the use intended in the contract work.

Should the Contractor propose to furnish an "or equal" material or assembly, he/she shall furnish the manufacturer's certificates of compliance as herein before described for the specified brand name

60-3 Certification of Compliance (Cont.)

material or assembly. However, the Engineer shall be the sole judge as to whether the proposed "or equal" is suitable for use in the work.

The Engineer reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

60-4 Plant Inspection

The Engineer or their authorized representative may inspect, at its source, any specified material or assembly to be used in the source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for their acceptance of the material or assembly.

Should the Engineer conduct plant inspections, the following conditions shall exist:

1. The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom he/she has contracted for materials.
2. The Engineer shall have full entry at all reasonable times to such parts of the plan that concern the manufacture or production of the materials being furnished.
3. If required by the Engineer, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Office or working space should be conveniently located with respect to the plant.

It is understood and agreed that the Owner shall have the right to retest any material which has been tested and approved at the source of supply after it has been delivered to the site. The Engineer shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans or specifications.

60-5 Storage of Materials

Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the Engineer. Unless otherwise shown on the plans, the storage of materials and the location of the Contractor's plant and parked equipment or vehicles shall be as directed by the Engineer. Private property shall not be used for storage purposes without written permission of the owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the Engineer a copy of the property owner's permission.

All storage sites on private or City/Township/Village/County/State property shall be restored to their original condition by the Contractor at their entire expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

60-6 Unacceptable Materials

Any material or assembly that does not conform to the requirements of the contract, plans or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work unless otherwise instructed by the Engineer.

Rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of work until such time as the Engineer has approved its use in the work.

60-7 Owner-Furnished Materials

The Contractor shall furnish all materials required to complete the work, except those specified herein (if any) to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified herein.

All costs of handling, transportation from the specified location to the site of the work, storage, and installing Owner-furnished materials shall be included in the unit price bid for the contract item in which such Owner-furnished material is used.

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss or other deficiencies which may occur during the Contractor's handling, storage or use of such Owner-furnished material. The Owner will deduct from any moneys due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage or use of Owner-furnished materials.

## **Section 70**

### **Legal Relations and Responsibility to Public**

#### 70-1 Laws to be Observed

The Contractor shall keep fully informed of all Federal and State laws, all local laws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. He/she shall at all times observe and comply with all such laws, ordinances, regulations, orders and decrees; and shall protect and indemnify the Owner and all their officers, agents or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by their self or their employees.

#### 70-2 Permits, Licenses and Taxes

The Contractor shall procure all permits and licenses, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

#### 70-3 Patented Devices, Materials and Processes

If the Contractor is required or desires to use any design, device, material or process covered by letters of patent or copyright, he/she shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the surety shall indemnify and save harmless the Owner, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses and damages which it may be obliged to pay by reason of an infringement, at any time during the prosecution or after the completion of the work.

#### 70-4 Restoration of Surfaces Disturbed by Others

The Owner reserves the right to authorize the construction, reconstruction or maintenance of any public or private utility service, or a utility service of another government agency at any time during the progress of the work. To the extent that such construction, reconstruction or maintenance has been coordinated with the Owner, such authorized work (by others) is indicated as follows:

<u>OWNER</u>	<u>LOCATION</u>	<u>PERSON TO CONTACT</u>
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\* See Specifications for Utility Coordination.

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the Engineer.

Should the owner of public or private utility service, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such owners by arranging and performing the work in this contract so as to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the Engineer, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damage due to such authorized work by others or for any delay to the work resulting from such authorized work.

#### 70-5 Sanitary, Health and Safety Provisions

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of their employees as may be necessary to comply with the requirements of the State and local Board of Health, or of other bodies or tribunals having jurisdiction.

70-5 Sanitary, Health and Safety Provisions (Cont.)

Attention is directed to Federal, State and local laws, rules and regulations concerning construction safety and health standards. The Contractor shall not require any worker to work in surrounding or under conditions which are unsanitary, hazardous or dangerous to their health or safety.

70-6 Public Convenience and Safety

The Contractor shall control their operations and those of their subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of vehicular traffic with respect to their own operations and those of their subcontractors and all suppliers in accordance with the subsection titled MAINTENANCE OF TRAFFIC of Section 40 herein before specified and shall limit such operations for the convenience and safety of the traveling public as specified in the subsection titled LIMITATION OF OPERATIONS of Section 80 herein after.

70-7 Barricades, Warning Signs and Hazard Markings

The Contractor shall furnish, erect and maintain all barricades, warning signs, and markings for hazards necessary to protect the public and the work.

These barricades, warning signs, lights and other traffic control devices shall conform to the Michigan Manual of Uniform Traffic Control Devices for Street and Highways (published by the Michigan Engineer of Transportation in conjunction with the United States Government Printing Office),

When used during periods of darkness, such barricades, warning signs and hazard markings shall be suitably illuminated.

Barricades, warning signs and hazard markings for urban and sub-urban construction shall be suitably spaced for the intended purpose. Fifty (50) foot maximum spacing shall be used on straight-a-way areas and twenty-five (25) foot maximum spacing shall be used on corners, radii or fillets. The Engineer may vary these spacings by either lengthening or shortening the span as necessary. Spacing for special applications shall be as required by the Engineer.

The Contractor shall furnish, erect and maintain markings and associated lighting of open trenches, excavations, temporary stock piles, and their parked construction equipment that may be hazardous to the operation of police, emergency fire-rescue or ambulance.

The Contractor shall furnish and erect all barricades, warning signs and markings for hazards prior to commencing work which requires such erection and shall maintain the barricades, warning signs, and markings for hazards until their dismantling is directed by the Engineer.

Open-flame type lights shall not be permitted within the County of Saginaw.

70-8 Protection and Restoration of Property and Landscape

The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property marks until the Engineer has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in their manner or method of executing work, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in the execution of the work, or in consequence

70-8 Protection and Restoration of Property and Landscape (Cont.)

of the non-execution thereof by the Contractor, he/she shall restore, at their own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed, or he/she shall make good such damage or injury in an acceptable manner.

70-9 Responsibility for Damage Claims

The Contractor shall indemnify and save harmless the Engineer and the Owner and their officers, and employees from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; and through use of unacceptable materials in constructing the work; or because of any act of omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order or decree. Money due the Contractor under and by virtue of their contract as may be considered necessary by the Owner for such purpose, may be retained for the use of the Owner, or in case no money is due, their surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settle and suitable evidence to that effect furnished to the Owner, except the money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he/she is adequately protected by public liability and property damage insurance.

70-10 Third Party Beneficiary Clause

It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create the public or any member thereof a third party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

70-11 Opening Sections of the Work to Traffic

Should it be necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract, such "phasing" of the work shall be specified herein and indicated on the plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified. The Contractor shall make their own estimate of the difficulties involved in arranging their work to permit such beneficial occupancy by the Owner as described below.

REQUIRED DATE OF  
PHASE OWNERS OCCUPANCY

WORK SHOWN ON  
PLAN SHEET

Upon completion of any portion of the work listed above, such portion shall be accepted by the Owner in accordance with the subsection titled PARTIAL ACCEPTANCE of Section 50.

No portion of the work may be opened by the Contractor for public use until ordered by the Engineer in writing. Should it become necessary to open a portion of the work to public traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the Engineer, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent opening are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the Owner shall be repaired by the Contractor at their expense.

The Contractor shall make their own estimates of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract.

#### 70-12 Contractor's Responsibility for Work

Until the Engineer's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with the subsection titled PARTIAL ACCEPTANCE of Section 50, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the work. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy, or of governmental authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at their expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings and soddings furnished under this contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

#### 70-13 Contractor's Responsibility for Utility Service & Facilities of Others

As provided in the subsection titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section, the Contractor shall cooperate with the Owner of any public or private utility service, a utility service of another government agency that may be authorized by the Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, or utility services of another agencies are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans. This information in no way relieves the Contractor from the responsibility of contacting the "MISS DIG" CALL CENTER 1-800-482-7161 or 811 72 hours prior to any excavation.

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility service's facilities, or structures that may be shown on the plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of their responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the owners of all utility services or other facilities of their plan of operations. Such notifications shall be in writing addressed to THE PERSON TO CONTACT as provided herein before in this subsection and the subsection titled RESTORATION OF SURFACES DISTURBED BY OTHERS of this section. A copy of each notification shall be given to the Engineer.

In addition to the general written notification herein before provided, it shall be the responsibility of the Contractor to keep such individual owners advised of changes in their plan of operation that would affect such owners.

Prior to commencing the work in the general vicinity of an existing utility service of facility, the Contractor shall again notify each such owner of their plan of operation. If, in the Contractor's opinion, the Owner's assistance is needed to locate the utility service or facility or the presence

70-13 Contractor's Responsibility for Utility Service & Facilities of Others (Cont.)

of a representative of the Owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious mean to reach the utility owner's PERSON TO CONTACT no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the Engineer.

The Contractor's failure to give the two days notice herein above provided shall be cause for the Engineer to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use excavation methods acceptable to the Engineer within 3 feet of such outside limits at such points as may be required to insure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, he/she shall immediately notify the proper authority and the Engineer and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the Engineer continuously until such damage has been repaired and service restored to the satisfaction on the utility or facility owner.

The Contractor shall bear all cost of damage and restoration of service to any utility service or facility due to their operations whether or not due to negligence or accident. The Contract Owner reserves the right to deduct such costs from any moneys due or which may become due the Contractor, or their surety.

70-14 Furnishing Right-of-Ways

The Owner will be responsible for furnishing all right-of-ways upon which the work is to be constructed in advance of the Contractor's operations.

70-15 Personal Liability of Public Officials

In carrying out any of the contract provisions or in exercising any power or authority granted to him by this contract, there shall be no liability upon the Engineer, their authorized representatives, or any official of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

70-16 No Waiver of Legal Rights

Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate or certificate made before or after completion of the work, nor shall the Owner be precluded or stopped from recovering from the Contractor or their surety or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud of such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guarantee.

70-17 Environmental Protection

The Contractor shall comply with all Federal, State, and local laws and regulations controlling pollution of the environment. He/she shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

70-18 Archaeological and Historical Findings

Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not with any property, district or site, and does not contain any buildings, structure or object listed in the current National Register of Historic Places published by the United State Engineer of the Interior.

Should the Contractor encounter, during their operations, any building, part of a building, structure or object which is incongruous with its surroundings, he/she shall immediately cease operations in that location and notify the Engineer. The Engineer will immediately investigate the Contractor's finding and will direct the Contractor to either resume their operations or to suspend operations as directed.

Should the Engineer order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract modification (change order or supplemental agreement) as provided in the subsection titled EXTRA WORK of Section 40 and the subsection titled PAYMENT FOR EXTRA WORK AND FORCE ACCOUNT WORK of Section 90. If appropriate, the contract modification shall include an extension of contract time in accordance with the subsection titled DETERMINATION AND EXTENSION OF CONTRACT TIME of Section 80.

## **Section 80 Prosecution and Progress**

### 80-1 Subletting of Contract

The Owner will not recognize any sub-contractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Engineer.

Should the Contractor elect to assign their contract, said assignment shall be concurred on by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner. In case of approval, the Contractor shall file copies of all subcontracts with the Engineer.

### 80-2 Notice to Proceed

The notice to proceed shall state the date on which it is issued. The Contractor shall begin the work to be performed under the contract within 10 days of the date set by the Engineer in the written notice to proceed, but in any event, the Contractor shall notify the Engineer at least 24 hours in advance of the time actual construction operations will begin.

### 80-3 Prosecution and Progress

Unless otherwise specified, the Contractor shall submit their progress schedule for the Engineer's approval within 10 days after the effective date of the notice of award. The Contractor's progress schedule, when approved by the Engineer, may be used to establish major operations and to check on the progress of the work. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the Engineer's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the prosecution of the work be discontinued for any reason, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.

### 80-4 Limitation of Operations

The Contractor shall control their operations and the operations of their subcontractors and all suppliers so as to provide for the free and unobstructed movement of pedestrian and vehicular traffic unless otherwise specified under Special Provisions.

The Contractor shall not commence new work that would be prejudicial to work already stated.

### 80-5 Character of Workers, Methods, and Equipment

The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who, in the opinion of the Engineer, does not perform their work in a proper and skillful manner or is intemperate or disorderly, shall, at the written request of the Engineer, be removed forthwith by the Contractor or sub-contractor employing such person, and shall not be employed again in any portion of the work without the approval of the Engineer.

#### 80-5 Character of Workers, Methods, and Equipment (cont.)

Should the Contractor fail to remove such person or persons or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the Engineer may suspend the work by written notice until compliance with such orders.

All equipment which is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall be such that no injury to previously completed work will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than specified in the contract, he/she may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in the basis of payment for the contract items involved, nor in contract time as a result of authorizing a change in methods or equipment under this subsection.

#### 80-6 Temporary Suspension of the Work

The Engineer shall have the authority to suspend the work wholly, or in part, for such period or periods as he/she may deem necessary, due to unsuitable weather, or such other conditions as are considered unfavorable for the prosecution of the work, or for such time as is necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Engineer, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the Engineer's order to resume the work. Claims for such compensation shall be filed with the Engineer within the time period stated in the Engineer's order to resume work. The Contractor shall submit with their claim information substantiating the amount shown on the claim. The Engineer will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. No provisions of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather, for suspensions made at the request of the Contractor, or for any other delay provided for in the contract, plans or specifications.

If it should become necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. He/she shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for local traffic within the limits of the project.

#### 80-7 Determination and Extension of Contract Time

The number of calendar or working days allowed for completion of the work shall be stated in the proposal and contract and shall be known as the CONTRACT TIME.

Should the contract time require extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

- a. CONTRACT TIME based on WORKING DAYS shall be calculated weekly by the Engineer. The Engineer will furnish the Contractor a copy of their weekly statement of the number of working days charged against the contract time during the week and the number of working days currently specified for completion of the contract (the original contract time plus the number of working days, if any, that have been included in approved CHANGE ORDERS or SUPPLEMENTAL AGREEMENTS covering EXTRA WORK.)

The Engineer shall base their weekly statement of contract time charged on the following considerations:

1. No time shall be charged for days on which the Contractor is unable to proceed with the principal item of work under construction at the time for at least 6 hours with the normal work force employed on such principal item. Should the normal work force be on a double-shift, 12 hours shall be used. Should the normal work force be on a triple-shift, 18 hours shall apply. Conditions beyond the Contractor's control such as strikes, lockouts, unusual delays in transportation, temporary suspension of the principal item of work under construction or temporary suspension of the entire work which have been ordered by the Engineer for reasons not the fault of the Contractor, shall not be charged against the contract time.
2. The Engineer will not make charges against the contract time prior to the effective date of the notice to proceed or the actual day the Contractor begins, whichever is the earliest date.
3. The Engineer will begin charges against the contract time on the first working day after the effective date of the notice to proceed or on the day the Contractor begins, whichever is the earliest date.
4. The Engineer will not make charges against the contract time after the date of final acceptance as defined in the subsection titled FINAL ACCEPTANCE of Section 50.
5. The Contractor will be allowed one week in which to file a written protest setting forth their objections to the Engineer's weekly statement. If no objection is filed within such specified time, the weekly statement shall be considered as acceptable to the Contractor.

The contract time (stated in the proposal) is based on the originally estimated quantities as described in the subsection titled INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES of Section 20. Should the satisfactory completion of the contract require performance of work in greater quantities than those estimated in the proposal, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in contract time shall not consider either the cost of work or the extension of contract time that has been covered by change order or supplemental agreement and shall be made at the time of final payment.

- b. CONTRACT TIME based on CALENDAR DAYS shall consist of the number of calendar days stated in the contract counting from the effective date of the notice to proceed and including all Saturdays, Sundays, holidays and non-work days. All calendar days elapsing between the effective dates of the Engineer's order to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

80-7 Determination and Extension of Contract Time (cont.)

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either the cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

- c. CONTRACT TIME based on CALENDAR DAYS shall consist of the number of calendar days stated in the contract counting from the effective date of the notice to proceed and including all Saturdays, Sundays, holidays and non-work days. All calendar days elapsing between the effective dates of the Engineer's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either the cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

- d. When the contract time is a specified completion date, it shall be the date on which all contract work shall be substantially completed.

If the Contractor finds it impossible for reasons beyond their control to complete the work within the contract time as specified, or as extended in accordance with the provisions of this subsection, he/she may, at any time prior to the expiration of the contract time as extended, make a written request to the Engineer for an extension of time setting forth the reasons which he/she believes will justify the granting of their request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, he/she may extend the time for completion in such amount as the conditions justify. The extended time for completion shall then be in full force and effect, the same as though it were the original time for completion.

80-8 Failure to Complete on Time

For each calendar day or working day, as specified in the contract that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in the subsection titled DETERMINATION AND EXTENSION OF CONTRACT TIME of this Section) the sum specified herein as liquidated damages will be deducted from any money due the Contractor or their surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in this contract.

**LIQUIDATED DAMAGES**

**TIME**

**\$500.00**

**Per Day**

Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

80-9 Default and Termination of Contract

The Contractor shall be considered in default of their contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the "Notice to Proceed,"  
or

#### 80-9 Default and Termination of Contract (Cont.)

- b. Fails to perform the work or fails to provide sufficient workers, equipment or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable or unsuitable, or
- d. Discontinues the prosecution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against him for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Engineer consider the Contractor in default of the contract for any reason herein before, he/she shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the Engineer of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the prosecution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as in the opinion of the Engineer will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under the contract, will be deducted from any moneys due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

#### 8-10 Termination for National Emergencies

The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the prosecution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

8-10 Termination for National Emergencies (Cont.)

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the Engineer.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their surety of its obligation for and concerning any just claim arising out of the work performed.

80-11 Work Area, Storage Area and Sequence of Operations

The Contractor shall plan and coordinate their work in such a manner as to insure safety and a minimum of hindrance to traffic.

## **Section 90**

### **Measurement and Payment**

#### 90-1 Measurement of Quantities

All work completed under the contract will be measured by the Engineer, or their authorized representatives, using United States Customary Units of Measurement.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 8 square feet or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the Engineer.

Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

In computing volumes of excavation the average end area method or other acceptable methods will be used.

The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inches.

The term "ton" will mean the short ton consisting of 2,000 pounds avoirdupois. All materials which are measured or proportioned by weights shall be weighted on accurate, approved scales by competent, qualified personnel at locations designated by the Engineer. If material is shipped by rail, the care weight may be accepted provided that only the actual weight of material is paid for.

However, care weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the Engineer directs, and each truck shall bear a plainly legible identification mark.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable to the Engineer, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity and all loads shall be leveled when the vehicles arrive at the point of delivery.

When requested by the Contractor and approved by the Engineer in writing, material specified to be measured by the cubic yard may be weighed and such weights will be converted to cubic yards for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

#### 90-1 Measurement of Quantities (Cont.)

Bituminous materials will be measured by the gallon or ton. When measured by volume, such volumes will be measured at 50° F., or will be corrected to the volume at 60° F., using ASTM D 1250 for asphalts or ASTM D 633 for tars.

Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work.

When bituminous materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, may be used for computing quantities.

Cement will be measured by the ton or hundred weight.

Timber will be measured by the thousand feet board measure (M.F.B.M.) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

The term "lump sum" when used as an item of payment will mean complete payment for the work described in the contract.

When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered by the Engineer in connection with force account work will be measured as agreed in the change order or supplemental agreement authorizing such force account work as provided in the subsection titled PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK of this section.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerance in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected and maintained by the Contractor, or be certified permanently installed commercial scales.

Scales shall be accurate within one-half percent of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the inspector before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed one-tenth of one percent of the nominal rated capacity of the scales, but not less than one pound. The use of spring balances will not be permitted.

Beams, dials, platforms and other scale equipment shall be so arranged that the operator and inspector can safely and conveniently view them.

Scale installations shall have available ten standard fifty-pound weights for testing the weighing equipment or suitable weights and devices for other approved equipment.

Scales must be tested for accuracy and serviced before use at a new site. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.

#### 90-1 Measurement of Quantities (Cont.)

Scales "overweighing" (indicating more than correct weight) will not be permitted to operate and all materials received subsequent to the past previous correct weighting-accuracy-test will be reduced by the percentage of error in excess of one half of one percent.

In the event inspection reveals the scales have been "under weighting" (indicating less than correct weight) they shall be adjusted and no additional payment to the Contractor will be allowed for materials previously weighted and recorded.

All costs in connection with furnishing, installing, certifying, testing and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.

When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

#### 90-2 Scope of Payment

The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage or expense of whatever character arising out of the nature of the work or the prosecution thereof, subject to the provisions of the subsection titled NO WAIVER OF LEGAL RIGHTS of Section 70.

When the "basis of payment" subsection of a technical specification, required that the contract price (price bid) included compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans or specifications.

#### 90-3 Compensation for Altered Quantities

When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for actually completed and accepted. No allowance, except as provided for in the subsection titled ALTERATION OF WORK AND QUANTITIES of Section 40 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the contractor which results directly from such alterations or indirectly from their unbalanced allocation of overhead and profit among the contract items, or from any other cause.

#### 90-4 Payment for Omitted Items

As specified in the subsection titled OMITTED ITEMS of Section 40, the Engineer shall have the right to omit from the work (order non-performance) any contract item, except major contract items, in the best interest of the Owner.

Should the Engineer omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the Engineer's order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the Engineer's order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

#### 90-4 Payment for Omitted Items (Cont.)

In addition to the reimbursement herein before provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the Engineer's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature and amount of such costs.

#### 90-5 Payment for Extra and Force Account Work

Extra work, performed in accordance with the subsection titles EXTRA WORK of Section 40, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work requires that it be done by force account, such force account shall be measured and paid for as follows:

- a. **Labor.** For all labor (skilled and unskilled) and foremen, in direct charge of a specific force account item, the Contractor shall receive the rate of wage (or scale) for every hour that such labor or foreman is actually engaged in the specified force account work. Such wage (or scale) shall be agreed upon in writing before beginning the work.

The Contractor shall receive the actual costs paid to, or in behalf of, workers by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work.

An amount equal to 15 percent of the sum of the above items will also be paid the Contractor.

- b. **Insurance and Taxes.** For property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security taxes on the force account work the Contractor shall receive the actual cost, to which cost (sum) 5 percent will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such insurance and taxes.
- c. **Materials.** For materials accepted by the Engineer and used, the Contractor shall receive the actual cost of such materials delivered on the work, including transportation charges paid by him (exclusive of machinery rentals as herein after set forth) to which cost (sum) 15 percent will be added.
- d. **Equipment.** For any machinery or special equipment (other than small tools) including fuel and lubricants, plus transportation costs, the use of which has been authorized by the Engineer, the Contractor shall receive the rental rates agreed upon in writing before such work is begun for the actual time that such equipment is committed to the work, to which rental sum 15 percent will be added.
- e. **Miscellaneous.** No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.
- f. **Comparison of Records.** The Contractor and the Engineer shall compare records of the cost of force account work at the end of each day. Agreement shall be indicated by signature of the Contractor and Engineer or their duly authorized representatives.
- g. **Statements.** No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with duplicate itemized statements of the cost of such force account work detailed as follows:
  1. Name, classification, date, daily hours, total hours, rate and extension for each laborer and foreman.

90-5 Payment for Extra and Force Account Work (Cont.)

2. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
3. Quantities of materials, prices and extensions.
4. Transportation of materials.
5. Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.

Statements shall be accompanied and supported by receipt invoice for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractor shall furnish an affidavit certifying that such materials were taken from their stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

The additional payment, based on the percentages specified above, shall constitute full compensation for all items of expense not specifically provided for the force account work. The total payment made as provided above shall constitute full compensation for such work.

90-6 Partial Payments

Partial payments will be made at least once each month as the work progresses. Said payments will be based upon estimates prepared by the Engineer of the value of the work performed and materials complete in place in accordance with the contract, plans and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with the subsection titled PAYMENT FOR MATERIALS ON HAND of this section.

No partial payment will be made when the amount due the Contractor since the last estimate amounts to less than one hundred dollars.

From the total of the amount determined to be payable on a partial payment, 10 percent of such total amount will be deducted and retained by the Owner until the final payment is made except, as may be provided (at the Contractor's option) in the subsection titled PAYMENT OF WITHHELD FUNDS of this section.

The balance (90 percent) of the amount payable, less all previous payments, shall be certified for payment. Should the Contractor exercise their option, as provided in the subsection titled PAYMENT OF WITHHELD FUNDS of this section, no such 10 percent retainage shall be deducted.

When not less than 95 percent of the work has been completed the Engineer may, at their discretion and with the consent of the surety, prepare an estimate from which will be retained an amount no less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the Engineer to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in the subsection titled ACCEPTANCE AND FINAL PAYMENT of this section.

#### 90-7 Payment for Materials on Hand

Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans and specifications and are delivered to an acceptable site on the project that is acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

- a. The material has been stored or stockpiled in a manner acceptable to the Engineer at or on an approved site.
- b. The Contractor has furnished the Engineer with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the Engineer with satisfactory evidence that the material and transportation costs have been paid.
- d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material so stored or stockpiled.
- e. The Contractor has furnished the Owner evidence that the material so stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of their responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this subsection.

#### 90-8 Payment of Withheld Funds

At the Contractor's option, he/she may request that the Owner accept (in lieu of the 10 percent retainage on partial payments described in the subsection titled PARTIAL PAYMENTS of this section) the Contractor's deposits in escrow under the following conditions:

- a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.
- b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than 10 percent retainage that would otherwise be withheld from partial payment.
- c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.
- d. The Contractor shall obtain the written consent of the surety to such agreement.

#### 90-9 Acceptance and Final Payment

When the contract work has been accepted in accordance with the requirements of the subsection titled FINAL ACCEPTANCE of Section 50, the Engineer will prepare the final estimate of the items of work actually performed. The Contractor shall approve the Engineer's final estimate or advise the Engineer of their objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and Engineer shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the Engineer's final estimate. If, after such 30 day period, a dispute still exists, the Contractor may approve the Engineer's estimate under protest of the quantities in dispute and such disputed quantities shall be considered by the Owner as a claim in accordance with the subsection titled CLAIMS FOR ADJUSTMENT AND DISPUTES of Section 50.

After the Contractor has approved, or approved under protest, the Engineer's final estimate, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of the subsection titled CLAIMS FOR ADJUSTMENTS AND DISPUTES of Section 50 or under the provisions of this subsection, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental, final estimate.

**Release of Claims:** Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver to the Owner a complete release of all claims against the Owner arising under and by virtue of this contract, including claims of all sub-contractors and suppliers of either materials or labor, other than such claims, if any, as may be specifically excepted by the Contractor.

**Final Payment:** After the final inspection and acceptance and having received from the Contractor the Release of Claims, the Owner shall pay to the Contractor the amount therein stated, less all prior payments advances whatsoever to or for the account of the Contractor. Final payment cannot be made by the Owner until any and all proper legal advertisements have been made. All prior estimates and payments including those relating to extra work shall be subject to correction by payment, which is throughout this Contract called Final Payment.