

Section 1109. Measurement and Payment and Metric Conversion

1109.01 MEASUREMENT OF QUANTITIES.

The work completed under the contract will be measured in accordance with the contract documents. The standards of the U.S. DOT, FHWA, and ASTM SI-10 will be used.

A. Methods of Measurement.

1. Payment will be based on the actual quantity of work performed under the various classifications of work in the contract unless otherwise provided below or in the method of measurement for the various classes of work.
2. For items to be paid for by plan quantity by specification or plan quantity agreement, by written agreement between the Contractor and the Engineer, final settlement may be made on the basis of contract quantities without final field measurements. This agreement may be made before work is started or after work has been completed, if no material deviation from the original plans is involved. Except for those items for which quantities cannot be accurately predetermined, the contract quantities have been accurately and properly estimated, but adjustments will be made for obvious errors or authorized changes. The Engineer will exercise such controls and make such measurements as are necessary to assure that each item of work is done in substantial compliance with the contract documents. The use of this agreement for payment shall not be considered as a change in the contract.
3. When a contract item or quantity for any granular material is in tons (Mg), the quantity may be measured by volume.

B. Metrication.

Project specific documents provided by the Contractor on English unit contracts shall be expressed in English units and on metric unit contracts shall be expressed in metric units. Manual conversion of metric units to English units is acceptable on contracts expressed in English units. Manual conversion of English units to metric units will be acceptable on metric unit contracts. The Contractor shall be responsible for the conversion of units. The following tables provide common metric units and symbols, prefixes, and conversions:

Table 1109.01-1: Common Prefixes Used with Metric Units		
Prefix	Symbol	Multiplication Factor
giga	G	1,000,000,000
mega	M	1,000,000
kilo	k	1,000
hecto	h	100
deka	da	10
base unit	—	1
deci	d	0.1
centi	c	0.01
milli	m	0.001
micro	μ	0.000001

Table 1109.01-2: Common Metric Units and Symbols		
Measurement	Unit	Symbol
Length	kilometer	km
	meter	m
	centimeter	cm
	millimeter	mm
	micrometer	μm
Area	hectare	ha
	square meter	m ²
	square centimeter	cm ²
	square millimeter	mm ²
Volume	cubic meter	m ³
	cubic centimeter	cm ³
	cubic millimeter	mm ³
	kiloliter	kL
	liter	L

	milliliter	mL
Mass	megagram	Mg
	kilogram	kg
	gram	g
Temperature	degrees Celsius	°C
Pressure	pascal	Pa
	kilopascal	kPa
	megapascal	MPa
Force	newton	N
	kilonewton	kN

Table 1109.01-3: Other Metric Units Which Might be Encountered and the Symbol for Each

Electric current	ampere	A
Luminous Intensity	candela	cd
Frequency	hertz	Hz
Energy, Work	joule	J
	gigajoule	GJ
Luminous flux	lumen	lm
Electric Potential	volt	V
Power	watt	W
	kilowatt	kW

**Table 1109.01-4: English and Metric Unit Conversion
(Referenced from ASTM SI-10, except those marked with asterisks)**

Measurement	English Units (Multiply)	Metric Units (To Find)	Conversion Factor (By)
Length	mile	kilometer	1.609347
	yard	meter	0.9144
	foot (U.S. Survey)	meter	0.3048006
	inch	millimeter	25.4
	station*	meter	30.48006
	station*	metric station	0.3048006
Area	acre	hectare	0.4046873
	square yard	square meter	0.8361274
	square foot	square meter	0.09290304
	square inch	square millimeter	645.16
	square mile	square kilometer	2.589998
	square*	square meter	9.290304
Volume	cubic yard	cubic meter	0.7645549
	cubic foot	cubic meter	0.02831685
	cubic inch	cubic millimeter	16,387.06
	gallon	liter	3.785412
	fluid ounce	milliliter	29.57353
	board foot	cubic meter	0.00236
Mass	ton (2000 lb.)	megagram	0.9071847
	pound	kilogram	0.4535924
	ounce	gram	28.34952
Pressure	pounds per sq. in. (psi)	kilopascals	6.894757
	pounds per sq. ft.	Pascal	47.880263
Overhaul	station yard*	station meter	0.2330368
Other	lbs./cu. ft.	kg/m ³	16.01846
	lbs. force	Newton	4.448222
	gal./cu. yd.	L/m ³	4.9511316
	lbs./gal.	kg/L	0.1198264
	oz./cu yd.	mL/m ³	38.680714
	oz./100 lbs.	mL/kg	0.6519846

	(To Find)	(Divide)	(By)
Temperature: $(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$ (Take the temperature in $^{\circ}\text{C}$ and multiply by 1.8; then add this number to 32 to get the temperature in $^{\circ}\text{F}$.)			

1. Exceptions.

The Engineer may approve exceptions to construction based on plan dimensions, on a project-by-project basis, provided the request does not adversely affect the intended design.

Exceptions shall be at no additional cost to the Contracting Authority.

a. Reinforced Concrete Box (RCB) Culvert.

- 1) The Contractor, as an option, may construct a comparable size single or twin box culvert in metric units using the MRCB-G1-95 or MTWRCB-G1-95 culvert standards in lieu of the English culvert standards specified on the letting plans.
Exceptions/substitutions on special designs that are not covered by the MRCB-G1-95 or MTWRCB-G1-95 standards will not be allowed.
- 2) After being awarded the contract, if the Contractor intends to exercise this option, the Contractor shall submit to the Engineer an amended copy of the letting plan showing the alternate units for all the appropriate dimensions. These shall include the fill height, the culvert span and rise, all longitudinal (along the culvert) dimensions and a list of the MRCB-G1-95 or MTWRCB-G1-95 culvert standard sheets required to build the RCB, including headwall sheets and bell joint sheets if required.
- 3) A list of comparable metric culvert opening sizes that can be constructed in lieu of a specified English culvert opening is as follows:

Table 1109.01-5: Comparable Metric Culvert Opening Sizes

English (feet)	Comparable Metric (millimeters)	English (feet)	Comparable Metric (millimeters)
3 x 3	900 x 900	8 x 6	2400 x 1800
4 x 4	1200 x 1200	8 x 10	2400 x 3000
5 x 3	1500 x 900	10 x 4	3000 x 1200
5 x 4	1500 x 1200	10 x 5	3000 x 1500
5 x 5	1500 x 1500	10 x 6	3000 x 1800
5 x 6	1500 x 1800	10 x 8	3000 x 2400
6 x 3	1800 x 900	10 x 10	3000 x 3000
6 x 4	1800 x 1200	10 x 12	3000 x 3600
6 x 5	1800 x 1500	12 x 6	3600 x 1800
6 x 6	1800 x 1800	12 x 8	3600 x 2400
6 x 8	1800 x 2400	12 x 10	3600 x 3000
8 x 4	2400 x 1200	12 x 12	3600 x 3600
8 x 5	2400 x 1500		

b. Construction Materials.

- 1) The following exceptions in [Division 41](#), Construction Materials are approved, and will be allowed:

a) [Section 4151](#), Steel Reinforcement.

All English Reinforcing steel may be substituted with metric reinforcing steel as follows:

Table 1109.01-6: Metric Reinforcing Steel

English	Hard Converted* Metric Size	Soft Converted* Metric Size
4	15	13
5	15	16
6	20	19
7	25	22
8	25	25
9	30	29
10	35	32
11	35	36

* Hard Converted metric size reinforcing steel refers to bars referenced in ASTM A 615/A 615 M - 95b using the following sizes: 10, 15, 20, 25, 30, 35, 45, and 55. Soft Converted metric size reinforcing steel refers to bars referenced in ASTM A 615/A 615 M - 96a using the following sizes: 10, 13, 16, 19, 22, 25, 29, 32, 36, 43, and 57.

b) Plant Operations.

Batching of materials may be performed with English or metric units, but all reports on English unit contracts shall be prepared in English units, and all reports on metric unit contracts shall be prepared in metric units.

c) Delivery Tickets.

Delivery tickets for materials such as aggregates, HMA mixes, asphalt binder, etc. may be converted at the end of the day, or at the end of a process for the day, in lieu of individual ticket conversion; but all reports on English unit contracts shall be prepared in English units and all reports on metric unit contracts shall be prepared in metric units.

- 2) All hard converted metric reinforcing steel (bar size matrix shown on plans) may be substituted with English reinforcing steel or soft converted metric steel as follows:

Table 1109.01-7: Hard Converted and Soft Converted Metric Sizes

English	Hard Converted* Metric Size	Soft Converted* Metric Size
4	10	13
5	15	16
6	20	19
8	25	25
10	30	32
11	35	36
<p>* Hard Converted metric size reinforcing steel refers to bars referenced in ASTM A 615/A 615 M - 95b using the following sizes: 10, 15, 20, 25, 30, 35, 45, and 55. Soft Converted metric size reinforcing steel refers to bars referenced in ASTM A 615/A 615 M - 96a using the following sizes: 10, 13, 16, 19, 22, 25, 29, 32, 36, 43, and 57.</p>		

- 3) The spacing or pattern of bar placement shall be as shown in the contract documents, and no changes in the spacing or the pattern will be allowed with the substitution.

2. Method of Measurement and Basis of Payment.

The cost of all equipment, labor, and materials necessary for metric conversion shall not be paid separately, but shall be considered incidental to the price bid for the item for which the conversion was necessary. The cost of exception of construction materials as specified above shall not be paid separately, but shall be considered incidental to the price bid for the item for which the substitution is made.

1109.02 SCOPE OF PAYMENT.

- A. The Contractor shall accept the compensation herein provided as full payment for furnishing all material, labor, tools, and equipment and for performing all work under the contract or any extension thereof allowed under [Article 1108.07](#); also, for all cost arising from the action of the elements or other natural causes, agreements, and performances, non-performances, or delays involving other contractors and third parties, or injunctions or lawsuits resulting therefrom, or from any unforeseen difficulties not otherwise provided for in the specifications and which may be encountered during prosecution of the work and up to the time of acceptance thereof, except damage to the work due to acts of war. Nothing herein shall in and of itself be construed to prejudice or deny any claim filed under provisions of [Article 1109.11](#).

- B. The contract price for any item shall be full compensation for acceptable work and for materials, equipment, tools, and labor for performance of all work necessary to complete the item in accordance with the contract documents, except as specifically exempt in the clauses covering the basis of payment for the item.

1109.03 PAYMENT FOR WORK PERFORMED.

The Contractor shall receive and accept payment for work performed under the contract as follows:

A. Items of Work Performed Which Are Covered by Definite Prices Stipulated in the Contract.

1. For all items of acceptable work performed which are covered by definite unit prices or lump sum amounts specified in the contract, the Contractor shall receive and accept compensation at the rate specified in the contract, except for items identified as that of significant change as provided in [Article 1109.16](#).
2. In making contract adjustments, consideration will be given to the portion of the cost of the work that can be classified as fixed costs, independent of the exact quantity of work performed, such as transportation and installation costs on equipment, overhead cost, etc. Any price adjustment will be arrived at from the standpoint that neither party to the contract shall be penalized by the increase or decrease in quantities which occasioned the price adjustment.

B. Extra Work.

Extra work ordered by the Engineer, of a quality or class not covered by the contract, will be paid for either at an agreed price or on a force account basis.

1. Agreed Price Basis.

For extra work ordered by the Engineer and performed on an agreed price basis, the Engineer and the Contractor shall enter into a written agreement before the work is undertaken. This written agreement shall describe the extra work that is to be done and shall specify the agreed price or prices therefore.

2. Force Account Basis.

- a. For extra work performed on a force account basis, the Contractor shall receive the rate of wage (or scale) agreed to in writing with the Engineer before beginning work for each and every hour that laborers, timekeepers, supervisors, and superintendents are actually engaged in work.
- b. 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 the amounts are required by a collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work.
- c. An amount equal to 35% of the sum of the above items will also be paid to the Contractor. The 35% shall cover compensation for furnishing the necessary small tools for work, together with all other overhead items of expense.
- d. For property damage, liability, and worker'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 10% will be added. The Contractor shall furnish evidence of the rate or rates paid for such bond, insurance, and tax.
- e. The wage of the superintendent, timekeeper, or supervisor who is employed partly on force account work and partly on other work shall be prorated between two classes of work according to the number of persons shown by the payrolls as employed on each class of work.
- f. For materials used on force account work, the Contractor shall receive the actual cost of materials delivered on the work, including the freight and handling charges as shown by original receipted bills, to which cost will be added a sum equal to 15% thereof.
- g. Rental rate for machinery, tools, or equipment (except small hand tools which may be used) and fuel and lubricants shall be based on the average monthly rental rate published in the RENTAL RATE BLUE BOOK by Primedia Information, Inc. The Engineer and the Contractor shall agree on a rental rate in writing before extra work on force account basis is performed. Profit percentage shall not be added to the rental rate.

- h. Compensation as herein provided shall be accepted by the Contractor as payment in full for extra work done on a force account basis. It will be assumed that such payment includes the use of tools and equipment for which no rate is allowed, overhead, and profit.
- i. At the end of each day, the Contractor shall prepare payrolls in duplicate for labor furnished on a force account basis, using the Contracting Authority's standard force account forms. Both copies shall be signed by the inspector and Contractor's representative. One copy shall be furnished to the Engineer and one to the Contractor. Claims for extra work performed on a force account basis shall be submitted to the Engineer in triplicate. To the claims shall be attached such receipts or statements as the Engineer may require in support of such claims. Such claims shall be filed not later than the tenth day of the month following that in which the work was actually performed, and shall include all labor charges, rental charges on machinery, tools, and equipment, and all material charges insofar as they are available.

3. Extra Work Performed by the Subcontractor.

The percentage markup to be allowed to the Contractor for extra work, including force account work, performed by a Subcontractor shall be in accordance with the following:

- 10% on the first \$50,000 with a \$100 minimum.
- 5% on the portion over \$50,000.

C. Deficient Work.

1. Payment for work judged by the Engineer to be deficient work will be made at the reduced rate specified in the contract documents or, if no such rate is specified, at a modification of the contract price, as determined by the Engineer.
2. All contract price adjustments will be subject to the concurrence of the Contracting Authority.

1109.04 CANCELLED WORK.

- A. The Contracting Authority will have the right to cancel any or all items from the contract when unforeseen circumstances, unanticipated design changes, or other reasons beyond the control of the Contractor prevent or unreasonably delay completion of the contract or certain items of the contract, or when the Contracting Authority determines that cancellation is in the public or national interest.
- B. The Contractor may be prevented from starting work on a contract or an identified phase of a contract as a result of a delay caused by the Contracting Authority or others.
- C. When the contract period is defined by the Approximate Starting Date and the delay prevents the Contractor's starting work on the contract or an identified phase of the contract for 30 calendar days beyond such date, the Contractor may request cancellation by written notice to the Engineer, stating the reasons therefore.
- D. When the contract period is defined by the Late Start Date and the delay prevents the Contractor's starting for more than 30 calendar days after the date of award of contract and at least 30 calendar days beyond the date which, by notice to the Engineer, the Contractor proposed to start work, the Contractor may request cancellation by written notice to the Engineer, stating the reasons therefore.
- E. In either case, within 30 calendar days from the date of the request, the Engineer will eliminate or minimize, if possible, the cause for the delay and issue a notice to proceed, redefine the basis on which the work is to proceed, or cancel the contract or phase of the contract.
- F. The Contractor shall not use delays that occur prior to starting work or an identified phase of the work as a basis of a claim against the Contracting Authority except for an extension of contract period.
- G. Notices described in this article should be transmitted by certified mail.
- H. For finished portions of non-major items canceled, the Contractor will be paid at the contract unit prices, in accordance with the provisions of [Article 1109.03](#). For finished portions of major items

canceled, the Contractor will be paid as provided in [Article 1109.16](#). For all items, materials ordered and delivered for the unfinished portion of such canceled or omitted items, the Contracting Authority will pay cost plus 10% as an overhead charge. The Contractor's expense for work of handling or transporting this material shall be included in computing the cost. The Contracting Authority will also pay any actual expenses sustained by the Contractor by reason of such cancellation or omission and not represented by work completed or material delivered. In computation of material cost or expenses sustained, no anticipated profit will be included. Material paid for shall become the property of the Contracting Authority and shall be disposed of as directed by the Engineer.

1109.05 PARTIAL PAYMENTS.

A. Progress Payments.

1. For work extending over a period of more than one month, the Contractor will receive monthly progress estimate payments based on the amount of work completed. For Primary and Secondary projects in which the Contracting Authority is the Department or a county Board of Supervisors, these progress payments will be bi-weekly if requested by the Contractor. For late payment, the Contracting Authority will pay a penalty of 1.0% per month (or part of a month), or a minimum of \$250, whichever is the greater amount, on any work completed but not processed for payment within 14 calendar days after completion of the work. Completion of the work includes physical completion of the work and submittal of all paperwork required by the contract.
2. On contracts for which the contract sum is \$10,000 or more, payments may be allowed based on value of processed or fabricated materials or rolled steel products which have been delivered on the work or 90% of the value of processed or fabricated material, or rolled steel products, reserved for the project and stored elsewhere within Iowa or in other locations where there is routine inspection by Departmental personnel, provided the materials are of acceptable quality and the manner of storage is satisfactory to the Engineer.
3. Should a reasonable doubt arise as to the integrity of any part of the completed work, the payment for that portion will not be allowed until the cause for such doubt has been removed. The Engineer's estimates of work completed will result in partial payments on the contract sum, and the allowance of a progress payment by the Contracting Authority does not constitute final acceptance of the work upon which the payments are based.
4. The Contractor shall sign the final voucher certifying the quantities are just and unpaid.

B. Prompt Payment to Subcontractors.

1. The Contractor shall promptly pay each subcontractor. Any delay or postponement of payment among the parties may take place only for good cause, with written notification to the subcontractor. A payment, excluding retainage, to a subcontractor for satisfactory performance of the subcontractor's work shall be made by the Contractor no later than one of the following, as applicable:
 - a. 7 calendar days after the Contractor receives payment for the subcontractor's work.
 - b. 7 calendar days after the Contractor could have received payment for the subcontractor's work, if the reason for nonpayment is not the subcontractor's fault.
2. The Contractor may withhold up to 5% of each progress estimate on work performed by subcontractors.
3. Retained funds due a subcontractor shall be payable by the Contractor within 30 calendar days after satisfactory completion of the work by the subcontractor. Subcontractor's work is satisfactorily completed when all requirements called for in the subcontract have been accomplished and required documentation provided by subcontractor. Non-bonded subcontractors may be required to submit proof of payment for all material bills and wages to the Contractor before the Contractor is required to pay the retainage.

4. The use of joint checks for payment to subcontractors for their materials is acceptable under the following conditions:
 - a. The request for a joint check from the prime contractor is made by the materials supplier.
 - b. The joint check issued by the prime contractor is for an amount not to exceed the cost of unpaid invoice(s) from the materials supplier to a subcontractor on that contract.
 - c. The joint check is given to the subcontractor and the subcontractor must release the joint check to the material supplier.
 - d. The use of a joint check by the prime contractor is applicable to all their subcontractors.

C. Retainage.

1. Three percent of each progress estimate will be deducted and held as retainage on the first \$1,000,000 paid on a contract. Additional retainage will be withheld to a maximum of \$30,000 following retainage release if subsequent work is performed. This retainage is held exclusively for claims filed in accordance with Chapter 573 of the Code of Iowa, and shall not be considered as an encumbrance on work performed by a subcontractor.
2. Deleted.
3. The retained funds held by the Contracting Authority for the contract will not be due and payable prior to 30 calendar days after the date of final acceptance of the entire contract or following the release or adjudication of claims that may have been filed, or until the Contractor has filed the signed final voucher with the Contracting Authority.

D. Complaints.

1. Compliance with prompt payment is the responsibility of both the Contracting Authority and Contractor.
2. If the Contractor feels the Contracting Authority has not complied with the prompt payment provisions, the initial attempt to resolve the issue shall be with the Project Engineer, stating the project number, items of work, quantities, unit prices, dates work was performed, total amount owed, and signature of a representative of the Contractor.
3. If a subcontractor feels the Contractor has not complied with the prompt payment provisions, the initial attempt to resolve the issue shall occur with the Contractor. The attempt to resolve the issue shall include at least one written request to the Contractor, stating the project number, items of work, quantities, unit prices, dates work was performed, total amount owed, and signature of a representative of the subcontractor.
4. If the initial attempt to resolve the issue does not result in satisfactory payment for completed work, the Contractor or subcontractor shall submit a written complaint to ~~the Office of Contracts~~ OES-Civil Rights. The written complaint shall include copies of the correspondence with the Project Engineer or Contractor that provides the details stated above. The Department will investigate and provide written response to the complainant within 15 business days of receipt of the complaint.

E. Required Records.

The Contractor shall maintain a system for tracking the status of subcontractor work and payments. The Contractor shall retain records that document the date of field completion, date of satisfactory completion of the work and the date of final payment (including funds retained in accordance with [Article 1109.05, B, 2](#)) to each subcontractor. Copies of the records to verify compliance with [Article 1109.05, B](#) shall be provided to the Contracting Authority, if requested.

Prior to receiving final payment, the Contractor shall provide to the Engineer the "Certification of Subcontractor Payments" (Form 518002). This form shall include the names of each approved subcontractor, the date of field completion, the date of satisfactory completion of the work, the date of final payment, the number of days between satisfactory completion and final payment, and the date of payment by the Contracting Authority. Explanations for any final payments made after the 30 calendar day period following field completion shall be included with Form 518002.

Failure to comply with [Article 1109.05, B](#) may result in price adjustment credits, loss of Annual Good Faith Effort points, or suspension of bidding qualification in accord with [Article 1102.03, A, 2](#).

1109.06 PAYMENT OF RETAINED FUNDS.

Retained funds may be released by one of two methods. On contracts where the progress and final payment vouchers are paid by the Department the retainage will be released according to Paragraph A. On all other contracts the retainage may be released by either Paragraph A or Paragraph B below.

A. Retainage Release.

When 95% of the original contract amount has been completed to the satisfaction of the Engineer, and it is apparent that conditions beyond the control of the Contractor will delay completion of the contract for more than 60 calendar days, the Contractor may request payment of retained funds. If the Contracting Authority agrees, payment of the retained funds will be made no sooner than 30 calendar days after approval.

B. Supplemental Contract.

1. When 95% of the work has been performed to the satisfaction of the Engineer, including consideration of the contract period, and it is apparent that conditions beyond the control of the Contractor will delay the completion of the contract for more than 60 calendar days, the Contractor may request a supplemental contract for the uncompleted portion of work on the same terms as those of the original contract. If the Contracting Authority agrees, and the surety for the Contractor consents to the extension of the bond for the time required to complete the supplemental contract, the supplemental contract will be issued. After the contract has been entered into, full payment will be made for the work completed except under circumstances which would prejudice the rights of those who have filed claims pursuant to Chapter 573, Code of Iowa.
2. The unpaid moneys held by the Contracting Authority as a retainer of the original contract price will be due and payable to the Contractor 30 calendar days after the date of the Contracting Authority's approval of the supplemental contract, except as provided for the release and adjudication of claims in [Article 1109.05](#).

1109.07 CERTIFIED STATEMENT OF SALES TAX AND USE TAX PAID.

Contractors and approved subcontractors will be provided a Sales Tax Exemption Certification to purchase building materials, supplies, or equipment in the performance of construction contracts let by the Department.

1109.08 RESERVED.

1109.09 FINAL ACCEPTANCE AND PAYMENT.

- A. Final acceptance is a written acceptance by the Contracting Authority. The Contracting Authority will make final acceptance promptly upon the satisfactory completion of the work. Final payment will be made as soon as possible following the expiration of statutory time for filing claims, or following adjudication or release of claims against the amount withheld.
- B. On all Interstate and Primary System contracts, interest shall be paid in accordance with IAC Chapter 27 and Chapter 573.12, Code of Iowa. Interest shall begin to accrue on retained funds on the date of the first progress payment until the date final payment is issued. Interest shall be paid on retained funds only if the accrued interest on those funds is greater than \$25. The interest payment will be issued by a separate warrant within 2 weeks after issuance of final payment. Interest will cease to accrue on retained funds if:
 - After 90 calendar days following contract acceptance if the Contractor has failed to submit to the Contracting Authority documentation necessary for final payment or,
 - Upon payment of retained funds by a retention release voucher.
- C. On county or city administered contracts, failure to make final payment within 50 calendar days after final acceptance of the work, and if all requirements of the contract are complete, will cause interest to accrue and additional payment to be made in accordance with provision of Chapter 573, Code of Iowa.

- D. Completion of the work will be considered as the date of approval and work acceptance on "Statement of Completion and Final Acceptance of Work" (Form 830435) by the Engineer. When interest is to be paid, the date from which interest is to be calculated will be the 31st calendar day after all required materials, certifications, and other documentation required to be submitted by the Contractor are received by the Engineer; however, the Contractor will be paid no interest if final payment is made within 50 calendar days from the final acceptance. The signed final voucher is not required documentation, but if not returned to the Engineer within 50 calendar days, it will be considered required documentation.
- E. Signing of the final voucher, or acceptance of payment based thereon, shall not waive any rights of either party in the resolution of any claim filed in accordance with [Article 1109.11](#).
- F. The Engineer must be satisfied as to the completion of each part of the work, and may reject any portion found to be inconsistent with the terms of the contract documents.

1109.10 RESPONSIBILITY FOR PAYMENT.

Payment for work will be made by the Contracting Authority by warrants drawn against funds which are legally available for such work.

1109.11 DISPUTED CLAIMS FOR EXTRA COMPENSATION.

- A. In any case where the Contractor deems that extra compensation is due for work or material not clearly covered in the contract and not ordered by the Engineer as extra work as defined herein, the Contractor shall notify the Engineer in writing to make claim for this extra compensation before work begins on which the claim is based.
- B. The Contracting Authority will be responsible for damages attributable to the performance, nonperformance, or delay, of any other contractor, governmental agency, utility, firm, corporation, or individual authorized to do work on the project, only when these damages result from negligence on the part of the Contracting Authority, its Engineer, or any of its officers or employees. In any case where the Contractor deems that extra compensation is due from the Contracting Authority as damages resulting from these performances, non-performances, or delays, the Contractor shall notify the Engineer in writing at the time the delay occurs.
- C. In all cases, if this notification is not given, or if after the notification is given, the Engineer is not afforded facilities for keeping strict account of actual costs as defined for force account construction, the Contractor thereby agrees to waive the claim for extra compensation for this work. This notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not be construed as establishing the validity of the claim. The claim, when filed, shall be in writing and in sufficient detail to permit auditing and an intelligent evaluation by the Engineer. The claim shall be supported by such documentary evidence as the claimant has available and shall be verified by affidavit of the claimant or other persons having knowledge of the facts. If the claimant wishes an opportunity to present the claim in person, then the claim shall be accompanied by a written request to do so. Where the claimant asks an opportunity to present the claim in person, the Engineer, within 30 calendar days of the filing of the claim, will fix a time and place for a meeting between the claimant and the Engineer. The Engineer will, within a reasonable time from the filing of the claim or the meeting above referred to, whichever is later, rule upon the validity of the claim and notify the claimant, in writing, of the ruling together with the reasons therefore. In case the claim is found to be just, in whole or in part, it will be allowed and paid to the extent so found.
- D. The Contractor shall not institute any court action against the Contracting Authority for the adjudication of any claims until the claim has been first presented to the Engineer, pursuant to this article, and either submitted to arbitration or a request for arbitration is denied pursuant to [Article 1109.12](#).

1109.12 ARBITRATION.

- A. If a Contractor's claim as outlined in [Article 1109.11](#) has been disallowed in whole or in part, then the Contractor may, within 30 calendar days from the date the ruling of the Engineer is mailed, make a written request to the Engineer that the claim or claims be submitted to a board of arbitration. The Engineer will decide whether the matter is one which is subject to arbitration and

will, within 30 calendar days of the receipt of the request for arbitration, grant or deny the same. The Engineer's decisions will be final.

- B. The board of arbitration will consist of three persons; one to be chosen by the Engineer, one by the Contractor, and the third by the two arbitrators thus chosen.
- C. The arbitrators selected will be persons experienced and familiar with construction or engineering practices in the general type of work involved in the contract, but will not have been a regular employee or an individual retained by either party at the time involved in the controversy, or at the time of arbitration.
- D. The board of arbitration will make its own rules of procedure and will have authority to examine records kept by the Engineer and the Contractor. If the desired records are not produced within 14 calendar days after they are requested, the board of arbitration will proceed without them as best it may. In determining the findings or award, or both, the majority vote of the board will govern. Copies of the findings or award, or both, signed by the arbitrators will be filed with the Engineer and the Contractor. A unanimous report or minority report may be filed. The board of arbitration will fix the cost of the proceedings, including a reasonable compensation to the arbitrators, and will determine how the total cost shall be borne.
- E. The board of arbitration will have jurisdiction to pass upon questions involving compensation to the Contractor for work actually performed or materials furnished and upon claims for extra compensation which have not been allowed by the Engineer. Jurisdiction of the board will not extend to a determination of quality of work or materials furnished or to an interpretation of the intent of the plans and specifications except as to matters of compensation. Jurisdiction of the board will not extend to setting aside or modifying the terms or requirements of the contract.
- F. The findings or award, or both, of the arbitration board, if acceptable to both parties to the contract, may become a basis for final payment.
- G. If the findings of the arbitration board are unacceptable to either party to the contract, said findings may become the basis for further negotiations between the parties. If a solution agreeable to both parties has not been reached through the filing of a claim, through arbitration, or if arbitration has been denied, either party may resort to whatever other methods for resolving the claim are available.

1109.13 CLAIMS AGAINST CONTRACTOR.

- A. The Contractor guarantees the payment of all just claims against the Contractor or any of the Contractor's subcontractors in connection with the work. If another contractor on the project submits a claim for alleged damages caused by delay due to the Contractor not having completed the work in a timely manner, the Contractor's bond shall remain in effect until payment of such claim is made or until litigation is concluded, at which time the bond will be released.
- B. Claims may be filed against the Contractor as provided in Chapter 573, Code of Iowa. The claims shall be submitted on forms provided by the Contracting authority. The amount of retainage held by the Contracting Authority is described in [Article 1109.05, C](#).
- C. For public improvement projects let and paid by the Department, the claims shall be submitted to the Project Accounting and Payables Section, Office of Finance, Iowa Department of Transportation. For public improvements let by the County, claims shall be filed with the county auditor. For public improvements let by the City, claims shall be filed with the officer, board, or commission authorized by law to let contracts for such improvements.
- D. The contract bond required by [Article 1103.05](#) stipulates that the principal and sureties agree to pay to all persons, firms, or corporations having contracts directly with the principal or with subcontractors, all just claims due them for labor performed or materials furnished, in the performance of the contract on account of which the bond is given, when the same are not satisfied out of the portion of the contract price which the public corporation is required to retain until completion of the public improvements, but the principal and sureties shall not be liable to said persons, firms, or corporations unless the claims of said claimants against said portion of the contract price shall have been established as provided by law.

1109.14 TIME LIMITS FOR FINAL ADJUSTMENT.

The Contractor shall understand that the Contracting Authority will not be bound to consider applications for correction of estimates and payments after the Contractor has signed the final estimate, or after 30 calendar days from the date when the final estimate is submitted to the Contractor for approval. Should an error be discovered as a result of the Contractor's annual audit, an application for correction, promptly made, will be considered.

1109.15 NATIONAL EMERGENCY PROVISIONS.

- A. The Contracting Authority may, by written notice, with the approval of the FHWA where applicable, terminate the contract or a portion thereof 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, as provided in Chapter 573A, Code of Iowa.
- B. When contracts, or any portion thereof, are 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 unit price, or as mutually agreed for items of work partially completed or not started. Claim for loss of anticipated profits will not be considered. Reimbursement for organization of the work (when not otherwise included in the contract) and moving equipment to and from the job will be considered where the volume of work completed is too small to compensate the Contractor for these expenses under the contract unit prices, the intent being that an equitable settlement will be made with the Contractor.
- C. Acceptable materials, obtained by the Contractor for the work, which have been inspected, tested, and approved by the Engineer, and which are not incorporated into the work, will 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.
- D. Termination of a Contract or a portion thereof shall not relieve the Contractor of responsibilities for the completed work, nor shall it relieve the Contractor's surety of its obligation for and concerning any just claims arising out of the work performed.

1109.16 STANDARDIZED CONTRACT CLAUSES.**A. Differing Site Conditions.**

- 1. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.
- 2. Upon written notification, the Engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the contract is warranted.
- 3. No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.
- 4. No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

B. Suspensions of Work Ordered by the Engineer.

- 1. If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to

the construction industry) and the Contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer, in writing, a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

2. Upon receipt, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or Subcontractors at any approved tier, and not caused by weather, the Engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The Contractor will be notified of the Engineer's determination whether or not an adjustment of the contract is warranted.
3. No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.
4. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

C. Significant Changes in the Character of Work.

1. The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered.
2. If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.
3. If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.
4. The term "significant change" shall be construed to apply only to the following circumstances:
 - a. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
 - b. When a major item of work, as defined elsewhere in the contract, is increased in excess of 125% or decreased below 75% of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125% of original contract item quantity. The adjustment in unit price for an underrun in excess of 25% will be computed on the difference between the actual quantity and 75% of the original contract quantity.