ATTACHMENT B

Demolition of Parcel #7

Applicable Missouri Standard Specifications
For Highway Construction
As Revised

MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

DIVISION 100

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SECTION 101

DEFINITION OF TERMS

Wherever the following abbreviations, terms or descriptive words are used in the plans, specifications or other contract documents, the intent and meaning shall be interpreted as follows:

101.1 Abbreviations.

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
AISC	American Institute of Steel Construction
AGC	Associated General Contractors of America
ANSI	American National Standards Institute
AREA	American Railroad Engineering Association
ASME	American Society of Mechanical Engineers
ASTM	ASTM International
AWG	American Wire Gauge
AWPA	American Wood-Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
CFR	Code of Federal Regulations
CS	Commercial Standards, U. S. Department of Commerce
CSR	Code of State Regulations
CUF	Commercially Useful Function
DBE	Disadvantaged Business Enterprise
EEI	Electrical Engineer's Institute
EEO	Equal Employment Opportunity
EPA	Environmental Protection Agency

ESAL	Equivalent 18-kip Single Axle Load
FCC	Federal Communications Commission
FHWA	Federal Highway Administration
GGBFS	Ground Granulated Blast Furnace Slag
GRI	Geosynthetic Research Institute
ICEA	Insulated Cable Engineers Association
IMSA	International Municipal Signal Association
ITE	Institute of Transportation Engineers
LED	Light Emitting Diode
MDNR	Missouri Department of Natural Resources
MHTC	Missouri Highways and Transportation Commission
MoDOT	Missouri Department of Transportation
MSDS	Material Safety Data Sheet
MUTCD	Manual on Uniform Traffic Control Devices
NCHRP 350	National Cooperative Highway Research Program (NCHRP) Report 350, *Recommended Procedures for the Safety Performance Evaluation of Highway Features*
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NRMCA	National Ready Mixed Concrete Association
NTPEP	National Transportation Product Evaluation Program
OSHA	Occupational Safety and Health Administration
PAL	Pre-Acceptance List
PS	U.S. Product Standard, U.S. Department of Commerce
PWL	Percent Within Limits
QA	Quality Assurance

QC	Quality Control
RETMA	Radio Electronics Television Manufacturer's Association
RSMo	Revised Statutes of the State of Missouri
SAE	Society of Automotive Engineers
SSPC	Society of Protective Coatings
UCP	Unified Certification Program
UL	Underwriter's Laboratory
USA	United States of America
USACE	United States Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
VOC	Volatile Organic Compound

101.1.1 Dual Unit Symbols.

h	hour
ppm	parts per million
rpm	revolutions per minute
vpm	vibrations per minute

101.1.2 English Symbols.

cy	cubic yards
F	degrees Fahrenheit
ft	foot/feet
in.	inch/inches
lb	pound/pounds
psf	pounds per square foot
psi	pounds per square inch
sf	square foot/square feet
sy	square yard/square yards

101.1.3 Metric Symbols.

C	degrees Celsius
g	gram/grams
ha	hectare/hectares
J	joule/joules
kg	kilogram/kilograms
km	kilometer/kilometers
km/h	kilometers per hour
kPa	kilopascal/kilopascals
L	liter/liters
µ	micro

m	meter/meters
m^2	square meter/square meters
m^3	cubic meter/cubic meters
Mg	megagram/megagrams
mm	millimeter/millimeters
mm^2	square millimeter/square millimeters
MPa	megapascal/megapascals
N	newtons
N-m	newton meter
s	seconds

101.2 Definitions of Terms.

Advertisement. The public announcement, as required by law, inviting bids for work to be performed or material to be furnished.

Appreciable Error. An increase in excess of 125 percent or decrease below 75 percent of the original contract quantity of an item where final measurements are not made to determine quantity for payment.

Auxiliary Lane. The portion of the roadway adjoining the traveled way and designated for speed change, or for other purposes supplementary to through traffic movement.

Award. The action of the Commission accepting the bid of the lowest responsible bidder for the work, subject to the execution and approval of a satisfactory contract therefore and bond to secure the performance thereof, and to such other conditions as may be specified or as required by law.

Bid. The written offer submitted by the bidder in the required manner on the bid to perform the work provided in the bidding documents at contract bid prices.

Bid Guaranty. The security furnished with a bid to ensure that the bidder will enter into the contract if the bid is accepted.

Bid Records. All writings, working papers, computer printouts, charts and all other data compilation that contain or reflect information, data or calculations used by the bidder to determine each contract unit price in the bid submitted, including but not limited to material relating to the determination and application of:

labor rates
equipment rates
home and field overhead rates and related time schedules
efficiency or productivity factors
arithmetic extensions
subcontractors, truckers and material supplier quotations
profit
contingencies

Any manuals standard to the industry that are used by the bidder in determining the bid shall be included in the bid records by reference and shall show the name and date of the publication and the publisher.

Bidder. Any individual, partnership, corporation, joint venturer or other entity submitting a bid to perform the contemplated work.

Bidding Documents. The documents furnished by the Commission comprising the Request for Bid, plans, *Missouri Standard Plans for Highway Construction*, addenda, Supplemental Specifications and General Provisions, *Missouri Standard Specifications for Highway Construction* and all other documents included in or referred to in those documents.

Bridge. A structure having a clear span greater than 20 feet (6.1 m) measured on a horizontal plane along the centerline of roadway; also a multiple span structure where the total length of spans is in excess of 20 feet (6.1 m). For both single and multiple span bridges, the clear span shall be construed to mean the total distance from stream face to stream face of end bents or outer walls of the structure.

Business Day. A day that MoDOT is open for business, excluding holidays, Saturdays and Sundays.

Calendar Day. Any day of the calendar year, including holidays, Saturdays and Sundays.

Central Laboratory. The central testing laboratory of the Commission for inspecting and determining the suitability of material.

Change Order. A written order from the engineer to the contractor, as authorized by the contract, directing changes in the work as made necessary or desirable by unforeseen conditions or events discovered or occurring during the progress of the work.

Change in the Work. An item of work not provided for in the contract as awarded, but found essential to the satisfactory completion of the contract. Contract adjustments for changes in work related to differing site conditions shall be determined in accordance with the contract provisions relating to differing site conditions.

Claim. A written request or demand for adjustment to the compensation due or time of performance of the contract made within the time, in the form, and pursuant to the provisions for such contract adjustments specified elsewhere in the contract documents of which these specifications are a part.

Commission. The Missouri Highways and Transportation Commission.

Contract. The written agreement between the Commission and the contractor covering the performance of the work for the proposed construction. The contract will include all contract documents. The contract may cover a single project or a combination of projects awarded as a single unit.

Contract Bond. The form of security approved by the Commission, furnished by the contractor and surety or sureties, guaranteeing complete performance of the contract and the payment of all legal debts pertaining to the construction of the project, or arising from the contract and the duties thereunder, and conditioned as may be required by the laws of the State of Missouri.

Contract Documents. Notice to Contractors, all Bidding Documents, Contract Bond, Contract Agreement, Acknowledgment, Contractor Questionnaire, Notice to Proceed, and all Change Orders.

Contract Time or Completion Date. The number of working days or calendar days shown in the bidding document as the time allowed for the completion of the work contemplated in the contract. If a calendar date for completion is shown in the bidding document, the contemplated work shall be completed by that date.

Contractor. The individual, partnership, corporation or joint venture undertaking performance of the work under the terms of the contract, and acting directly or through the contractor or contractor's agents, employees or subcontractors.

Controversy. A dispute or disagreement between a contractor and the Commission related to interpretation of contract documents or the engineer's decision under contracts entered into by the contractor with the Commission made in writing and in compliance with the requirements for resolutions of controversies under the contract, but which is not a claim under the contract, all as provided elsewhere in the contract documents of which these specifications are a part.

Cost. Cost will mean the actual cost incurred, as distinguished from forecasted cost and determined in accordance with prevailing principles applicable to public contracts including *Contract Cost Principles and Procedures*, 48 CFR, Part 31 and *Government Auditing Standards*, as published by the Comptroller General of the United States.

Crashworthy End Terminal. This term will apply to both crashworthy end terminals and crash cushions.

Culvert. A structure not classified as a bridge that provides an opening under any portion of a roadway.

Days. Days as used in the contract documents will mean calendar days, unless specified otherwise.

Delay. Any event, action, force or factor that causes the established contract time to be exceeded for performance of the contract.

(a) Compensable Delay. An excusable delay for which the contractor may be entitled to additional monetary compensation

(b) Excusable Delay. A delay to the contract or milestone completion date that was beyond the contractor's control and not caused by the contractor's fault or negligence and for which a contract or milestone time extension may be granted.

(c) Noncompensable Delay. An excusable delay for which the contractor may be entitled to an extension of time, but no additional monetary compensation.

(d) Nonexcusable Delay. A delay to the contract or milestone completion date that was reasonably foreseeable and within control of the contractor, for which no monetary compensation or time extension will be granted.

Differing Site Conditions. Subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work

Disadvantaged Business Enterprise, or **DBE.** A contracting firm certified to participate in U.S. Department of Transportation financial assistance programs as a DBE by MoDOT or by the Missouri Unified Certification Program (UCP) pursuant to Title 49 CFR, Part 26, and pursuant to Title 7 CSR Division 10, Chapter 8, governing MoDOT's DBE Program.

Divided Highway. A highway with separated traveled ways for traffic in opposite directions. Traveled ways separated by painted medians will not be considered divided.

Drainage Ditch. An open depression constructed for the purpose of carrying off surface water.

Engineer. The chief engineer or any other authorized representative of the Commission. Where the term chief engineer is used, the term shall mean the chief engineer in person. MoDOT pursues its mission through the functional units defined by law. Where a functional unit is stated in the contract documents, it will mean the engineer of the functional unit or designee.

Equitable Adjustment. An adjustment to the time or price specified in the contract based upon contractor's actual and reasonable costs to perform the work for the reasons and determined by the methods specified elsewhere in the contract documents.

Extent of the Federal Share. The percentage of federal participation in the costs of the project agreed to between USDOT, FHWA and MHTC before the project is awarded. It does not mean, with regard to contract adjustments, an amount of additional federal participation to be provided regarding the project.

Gender Related Terms. No gender restrictions or limitations are intended or suggested by the use of terms "he", "him", "his", "it" or "its" in these specifications.

Highway. A public way for purposes of vehicular travel, including the entire area within the right of way.

Holidays. Missouri public legal holidays are:

January 1 - New Year's Day
Third Monday in January - Martin Luther King Day
February 12 - Lincoln's Birthday
Third Monday in February - President's Day
May 8 - Truman's Birthday
Last Monday in May - Memorial Day
July 4 - Independence Day
First Monday in September - Labor Day
Second Monday in October - Columbus Day
November 11 - Veterans Day
Fourth Thursday in November - Thanksgiving Day
December 25 - Christmas Day

When any of the above holidays fall on a Sunday, the holiday will be observed on the following Monday; when any of the above holidays fall on a Saturday, the holiday will be observed on the immediately preceding Friday.

Laboratory. The Central Laboratory or any other testing laboratory that may be designated by the engineer for inspecting and determining the suitability of material.

Lead Workers. Hourly employees in direct charge of the specific operations on a project. Formerly referred to as the foremen.

Local Traffic. Traffic that has either its origin or its destination at some point within the limits of the project. Local traffic will also include that traffic on all side roads that lead into the project where such traffic does not have a satisfactory outlet over a public road or street.

Major and Minor Items of Work. Any item having an original value in excess of 10 percent of the original contract amount will be considered as a major item or items. All other original

contract items will be considered as minor. Where major contract items are not identified, the original contract item of greatest total cost, computed from the original contract price and estimated quantity, and such other original contract items next in sequence of lower total cost, computed in like manner, necessary to show a total cost at original prices and quantities of no less than 60 percent of the original contract cost will be considered as a major item or items.

Median. The portion of a divided highway separating the traveled ways for traffic in opposite directions.

Notice of Bid Opening. The notification provided prospective bidders, containing a description of the proposed work, instructions, information and the reservation of the right of the Commission to reject any and all bids.

Notice to Contractors. The document contained in the bidding document describing the work to be performed and including information and requirements for the submission of bids.

Notice to Proceed. The written notice from the engineer notifying the contractor of the date on or before which prosecution of the work is to begin.

Outer Roadway Or Service Road. A roadway auxiliary to and located on the side of the throughway for service to abutting property and adjacent areas.

Pay Item. An item of work specifically described and for which a price, either unit or lump sum, is provided. It includes the performance of all work and the furnishing of all labor, equipment and material contemplated or described on the plans or in the text of the specification item included in the contract.

Plans. Detailed construction drawings or reproductions thereof, which show the location, character and details of the work. When referenced in the contract documents, plans will include both the project specific drawings and the standard drawings.

Project. The specific section of the highway, including all appurtenances and construction to be performed thereon under the contract.

Request for Bid. The document furnished by the Commission that includes a complete set of bidding forms and appendices, and certain contract terms, which are made a part of the bidding document by reference.

Right of Way. Land acquired by the Commission for the construction and maintenance of a highway.

Roadbed. The graded portion of a highway between the outside shoulder lines, including the base course, surface course, shoulders and median.

Roadway. The portion of the highway within the limits of construction, including bridges and other structures.

Sec. Refers to sections in the standard and supplemental specifications unless specified otherwise in the contract documents.

Shoulder. The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

Shall. When used in the contract documents, states a mandatory duty on the part of the contractor.

Significant Change in the Work. When the character of the work, as altered, (1) differs materially in kind or nature from that involved or included in the original proposed construction or (2) when a major item of work as defined elsewhere in the contract is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity.

Specifications. The compilation of provisions and requirements for the performance of prescribed work.

(a) Standard Specifications. A book of specifications approved for general application and repetitive use.

(b) Supplemental Specifications. Approved additions and revisions to the standard specifications.

(c) Special Provisions. Revisions to the standard and supplemental specifications applicable to an individual project.

State. The State of Missouri, acting by and through the Commission.

Subcontractor. Any individual, partnership, corporation, joint venture or other entity to whom the contractor, with the written consent of the engineer, sublets any part of the work under the contract.

Substructure. That part of a bridge structure below the bearings of simple and continuous spans; all buttresses and piers below the skewbacks of arches; all parts of rigid frames, or integral bents below tops of footings or tops of caissons; and also, all parts of the abutments, backwalls and wingwalls, except handrails and handrail posts.

Superstructure. All parts of a bridge structure not defined as substructure.

Surety. A corporate body duly authorized to do business in the State of Missouri, and which has executed a bid bond with the bidder or a contract bond with the contractor.

Temporary Structures. Structures required for the use of traffic while construction is in progress and not designated to remain a part of the permanent roadway.

Throughway. A general term denoting a highway primarily for through traffic, usually on a continuous route.

Through Traffic. Traffic which has neither its origin nor its destination within the limits of the project.

Traveled Way. The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

Unbalanced Bid, Materially. A bid that generates a reasonable doubt that award to the bidder submitting a mathematically unbalanced bid will result in the lowest ultimate cost to the Commission.

Unbalanced Bid, Mathematically. A bid containing lump sum or unit bid items that do not reflect reasonable actual costs plus a reasonable proportionate share of the bidder's anticipated profit, overhead costs and other indirect costs.

Will. When used in the contract documents, states a mandatory duty on the part of the engineer or department or on the part of both the engineer or department and the contractor, which is indicated by the context of use.

USA. Any of the 50 states, the District of Columbia, Puerto Rico and any other territories and possessions of the United States of America.

Work. The furnishing of all labor, material, equipment and other incidentals necessary or convenient to the successful completion of the project and the carrying out of all of the duties and obligations imposed by the contract.

Working Drawings. Stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel or any other supplementary plans or similar data which the contractor will be required to submit to the engineer for approval.

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

102.1 Notice of Bid Opening. After the date is fixed for the receipt of bids, the notice of bid opening will be posted on MoDOT's website and published as required by law. The notice of bid opening will contain a description of the proposed work, instructions and information to the potential bidder regarding bid forms, plans, specifications, combination bids and the reservation of the right of the Commission to reject any and all bids.

102.2 Contractor Questionnaire. Each prospective bidder, including a joint venture, shall file a contractor questionnaire on the form furnished by the Commission, which is available on MoDOT's website. The contractor questionnaire shall be furnished to the Commission as a separate document apart from any other document submitted. A bid will not be opened and read unless a fully responsive contractor questionnaire is on file with the Commission at least seven days prior to the time set for the opening of the bids. A new contractor questionnaire shall be filed annually, except the Commission reserves the right to request a contractor questionnaire from any contractor as of any date if the Commission has shown reason to believe that the contractor's experience data may have changed from that shown on the questionnaire on file. This document shall include a record of the bidder's experience data. The Commission will use this information as an aid to determine in each instance the lowest responsible bidder and nothing contained herein shall be construed as depriving the Commission of the Commission's discretion in the matter of determining the lowest responsible bidder.

102.2.1 At any time prior to award, as a condition of award and for a period of three years after the date of final acceptance, the Commission may request true copies of the bidder's financial data, including the bidder's balance sheet, profit and loss statement and similar financial data, as of the close of the bidder's most recent fiscal year prior to submission of the bid, and for each fiscal year between the contract award and final acceptance of the contract work. Unless specified otherwise by the Commission, financial data shall be prepared by an accountant and audited financial data shall be provided if it is available to the bidder for the fiscal period requested. A bidder who has not closed the first fiscal year prior to the date of the request shall supply the last periodic balance sheet, profit and loss statement and similar data.

102.2.2 The contractor questionnaire contains an affidavit of labor standards compliance. Each prospective bidder shall execute the affidavit, stating that such bidder will fully comply with all written requests by the Missouri Department of Labor and Industrial Relations, Division of Labor Standards, to provide information for the purpose of establishing a prevailing wage.

102.2.3 The prospective bidder, if a corporation, shall submit with the contractor questionnaire, a copy of the bidder's current annual registration report or initial registration report if a new corporation, on file with the Corporation Division of the Missouri Secretary of State's Office. Each corporation that is a party to a joint venture shall submit the same required report with the corporation's joint venture contractor questionnaire.

102.2.4 A prospective bidder doing business in the State of Missouri under a fictitious name shall furnish to or have on file with the Commission a certified copy of the prospective

bidder's registration of the fictitious name issued by the Missouri Secretary of State, as an enclosure with the contractor questionnaire. No contract will be executed by the Commission until such a certificate is furnished by the bidder.

102.2.5 All prospective bidders who are corporations organized in states other than Missouri or countries other than the USA shall furnish, at the prospective bidder's cost, a certified copy of a current certificate of authority to do business in Missouri, with said certificate to remain on file with the Commission. Such a certified copy may be secured from the corporation supervisor in the Office of the Secretary of State, Jefferson City, Missouri. The prospective bidder agrees to cause the prospective bidder's authority to do business as a foreign corporation to be continued and extended throughout the life of any contract awarded and until all claims thereon and thereunder shall have been finally settled. All prospective bidders shall have a valid certificate of authority to transact business in Missouri at the time of bid opening as a condition of responsiveness.

102.3 Bidding . Bidders will be allowed to submit paper bids or submit bids electronically using the BidExpress® website.

102.3.1 The Commission will make the bidding documents available to the prospective bidder. The documents will state the location, description and requirements of the contemplated construction and will show the estimate of the various quantities and types of work to be performed or material to be furnished, and will have a schedule of items for which unit bid prices are invited. The bidding documents will state the time in which the work shall be completed, the amount of the bid guaranty and the date, time and place of the opening of bids.

102.3.2 Bidders that choose to submit bids via the internet shall have on file with the Commission an "Internet Bidding Agreement", a copy of which can be found on MoDOT's website. This agreement shall be initiated by the prospective bidder and submitted to the Commission. A bid will not be opened and read unless a fully executed agreement is on file with the Commission at least seven days prior to the time set for the opening of the bids.

102.3.3 The prospective bidder will be required to pay the Commission the sum stated in the notice of bid opening for each copy of a project's bidding documents. The *Missouri Standard Specifications for Highway Construction, Missouri Standard Plans for Highway Construction*, including all revisions of these documents, and other items referenced in the bidding documents, whether attached or not, will be considered a part of the bid. A prospective bidder will be expected to separately purchase the current edition of the *Missouri Standard Specifications for Highway Construction* and the *Missouri Standard Plans for Highway Construction*, including all revisions of these documents.

102.3.4 Bidders choosing to submit bids via the internet will be responsible for any additional fees associated with submitting bids using Trns•port Expedite® Electronic Bidding System software and the BidExpress® website.

102.3.5 It will be conclusively presumed that all of the bidding documents are in the bidder's possession and that these documents have been reviewed and used by the bidder in the preparation of any bid submitted. The effective dates of the *General Provisions & Supplemental Specifications* and the *Supplemental Plans for Highway Construction* will be specified in the contract documents. A copy of the latest version of these documents is available on MoDOT's web site.

102.4 Interpretation of Quantities in Bid Schedule. The quantities appearing in the bid schedule are estimated only and are prepared for the comparison of bids. Payment to the contractor will be made only for the actual quantities of work performed and accepted in accordance with the contract, except where final measurements are not made, as hereinafter provided. The quantities of work to be done and material to be furnished may each be increased, decreased or omitted as hereinafter provided.

102.5 Examination of Plans, Specifications, Special Provisions and Site of Work. The engineer will provide plans and specifications to the contractor providing direction on the work required. Conditions indicated on the plans and in the bidding documents represent information available from surveys and studies. The bidder is expected to carefully examine the proposed work site and bidding documents before submitting a bid. Submission of a bid will be considered proof that the bidder has made an examination and is satisfied with the conditions to be encountered in performing the work.

102.5.1 Other documentary information, consisting of boring logs and other factual subsurface information that does not constitute part of the contract or contract documents, will be available from the engineer upon the bidder's written request. This information, used for project design and quantity estimation purposes, was not obtained to determine actual subsurface conditions, actual quantities of subsurface material or appropriate construction methods, nor shall this information be considered a representation of actual conditions to be encountered during construction. Furnishing this information does not relieve a bidder from the responsibility of making an investigation of conditions to be encountered, including but not limited to site visits, and basing the bid on information obtained from these investigations and the professional interpretation and judgment of the bidder. The bidder shall assume the risk of error if the information is used for any purposes for which the information was not intended. The Commission makes no representation as to the accuracy of the logs or other subsurface information, since the accuracy of this information is limited by the equipment used, the personal judgment of the persons making the investigation, and by the limited number of samples taken. Records indicate conditions encountered only at the times and the specific locations shown. Ground water observations are not routinely recorded in all boring logs. The absence of such data does not mean ground water will not be encountered. An indication of ground water constitutes no representation or warranty as to where ground water will be found, nor its volume or artesian character, during the project work. Any assumptions a bidder may make from this data is at the bidder's risk; none are intended by the Commission.

102.5.2 Certain other documents in the Commission's possession relating to subsurface investigations are not included in the records made available to bidders under Sec 102.5.1. These documents include correspondence and reports containing interpretations, opinions and recommendations that may or may not be factual, accurate or consistent with design decisions. Any such information that does not constitute part of the contract or contract documents is available, at a nominal cost, from the engineer upon specific, written request by the prospective bidder. The bidder is cautioned that any and all such interpretations, conclusions and recommendations are not represented or warranted to be accurate or reliable and the Commission cannot be bound by them, whether or not the Commission may appear to have "relied" on them. These subjective findings, opinions or assumptions have not been confirmed or shown to be reliable and the bidder assumes the sole risk of liability or loss if the bidder does rely on these documentary interpretations and conclusions to its detriment, delay or loss.

102.5.3 The bidder assumes all risks that may be encountered in basing the order of work, equipment or personnel determinations, time of performance, cost of performance, working days needed, item bid prices or any other element of the work, on documents that the bidder obtains from the Commission, which are not expressly warranted.

102.5.4 Unless stated specifically and expressly in the bidding documents, no project involving excavation, which may include either borrow or the disposal of excess material, is represented or warranted to be a "balanced" job or project, regardless of whether the bidding documents use terms such as "balance points" or other terms that could be interpreted to suggest balance. Whether or not such projects involving excavation contain bid items for borrow or disposal of excess material, the bidder should assume that either is possible and investigate those possibilities accordingly in determining a bid.

102.5.5 Utilities are often in the process of relocation at the time a project is bid. Regardless of what utilities are shown in the bidding documents and utility locations listed, the bidder shall contact each area utility to determine the presence and location of utility lines. The bidder shall determine and shall assume the risk as to whether utilities that are to be relocated by the utility companies have in fact been relocated and if not, when the utility company anticipates the relocation shall be completed. The bidder shall independently determine the reliability of the information received from the utility companies and shall make the determination as to the sequence and timing of utility relocations in determining a bid.

102.5.6 The bidder and contractor has an affirmative duty to inquire and obtain from the National Oceanic and Atmospheric Administration (NOAA), National Climatic Data Center (NCDC), from the USACE and any other cognizant government agency, historic weather and water stage information which the bidder may consider important as guides for bidding and scheduling the work. Some of that information may be contained among the bidding documents solely as a convenience and is not warranted nor represented to any degree to be complete and accurate historic data. No warranty or representation whatsoever is made or intended by the Commission of future weather conditions during the project. Water stages and depths of water at any place or at any time within the area of the project are acknowledged to be beyond control of the Commission and dependent upon future weather conditions and actions by other governmental bodies, such as the government of the USA or third parties. The Commission makes no representation that other governmental bodies or third parties will not take action during the period of the contract or any extended time of contract performance, which will affect water stages or depths. Bidders are put on notice that the bidder's operations may be affected by water flows, siltation and other causes over which it is acknowledged the Commission has no control

102.6 Sales and Use Taxes. The sales tax exemption for public works contractors of certain entities, in Section 144.062 RSMo, will not apply to contractors for the Commission or to the contractor's subcontractors or suppliers. The Commission will not issue a sales tax exemption certificate to any contractor, subcontractor or supplier on any project. Contractors, subcontractors or suppliers shall pay all applicable state and local sales taxes or state use taxes on all material and supplies used on a project and should include those taxes in their bid.

102.7 Preparation of Bidding Documents. Bids may be prepared on paper or electronically.

102.7.1 Bids submitted on paper shall be properly signed, sealed and submitted in accordance with Sec 102.10. Each bidder shall specify in the bid, in figures, a unit price for each of the separate items listed in the bidding documents, except a unit price entry will not be necessary for those items having a quantity of one and only the amount for that item need be entered. Zero will be considered a valid bid. The bidder shall not enter zero in any "Unit Price" field unless zero is the intended bid for that item. A unit price left blank, with or without an extension, other than items having a quantity of one, will be considered as zero by the Commission. In case of alternate items, unit prices shall be entered for only one alternate, unless otherwise specified in the bidding documents. Bids shall not contain interlineations, alterations or erasures except as noted in Sec 102.7.1. The bidder shall show the products of the respective unit prices and quantities in the amount column provided for that purpose. These extensions shall be totaled and in case of errors or discrepancies in extensions, the unit

prices shall govern. All entries in the bid shall be in ink. If, in the sole discretion of the engineer, an obvious and apparent clerical error exists in the unit price listed for an item due to a misplaced decimal, but the extension appears to be correct and as intended in all respects, the engineer may correct the unit price bid in accordance with the extension listed. All errors in extensions or totals will be corrected by the engineer and such corrected extensions and totals will be used in comparing bids.

102.7.2 Bids submitted electronically shall be prepared using the latest version of Trns Port Expedite® Bid and be submitted using the BidExpress® website. Each bidder shall specify in the bid, in figures, a unit price for each of the separate items listed. The bidder shall not enter zero in any "Unit Price" field unless zero is the intended bid for that item. A unit price left blank will be considered a zero by the Commission. In case of alternate items, unit prices shall be entered for only one alternate, unless otherwise specified in the bidding documents.

102.7.3 A bidder may alter or correct a unit price, lump sum bid or extension entered on the paper bid form or the computer-generated itemized paper bid form by crossing out the figure with ink and entering a new unit price, lump sum bid or extension above or below in ink, with the bidder's initials.

102.7.4 A bidder may submit a separate bid on any or all projects, except that bids shall be submitted for all projects in a required combination. Bidders not having the ability to simultaneously execute all contracts for bids submitted during a bid opening may state, in one of the bids, the maximum total value of contract awards the bidder is willing to accept for that bid opening. Only one statement of "Maximum Monetary Value of Awards Accepted this Bid Opening" shall be completed per bid opening. In the event a bidder submits multiple statements of maximum award, the lowest value stated will be used. The Commission reserves the right to select and award the combination of bids, not exceeding this maximum, that will be to the best interest of the State, provided these bids are in conformance with the requests for bids. Any corrected bid that exceeds the lowest specified maximum award may be declared non-responsive.

102.7.5 The bid of an individual, including those doing business under a fictitious name, shall include the signature and address of the individual. The signature shall be exactly the same as that appearing on the contractor questionnaire.

102.7.6 Bids submitted electronically shall have thedigital ID of the same individual who signed the contractor questionnaire.

102.7.7 The bid by a partnership or joint venture, including individuals doing business under fictitious names or corporations, shall be executed by at least one of the partners followed by the title "Partner" or one of the joint venturers followed by the title "Joint Venturer" and the business address of the partnership or joint venturer shown. The true legal name and address of each partner and joint venturer shall also be shown and shall appear exactly the same as that shown on the contractor questionnaire.

102.7.8 The bid by a corporation, whether acting alone or as a joint venturer, shall show the address and name of the corporation exactly as shown on the contractor questionnaire, and shall include the signature or digital ID and title of a person authorized by its board of directors to bind the corporation.

102.7.9 Each bidder shall submit with each bid a sworn statement, executed by or on behalf of the bidder to whom a contract may be awarded, certifying that the bidder has not, either

directly or indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with the bid or any contract that may result from its acceptance.

102.7.10 A bid will not be accepted or considered if the bid is the product of collusion among bidders, if the bidder is disqualified or determined not responsible or if the bid is irregular in accordance with Sec 102.8.

102.7.11 For bids submitted on paper, the bidder may use the Trns•port Expedite® Electronic Bidding System software to generate the itemized bid sheets. Changes in accordance with Sec 102.7.1 will be permitted. When the bidder submits computer-generated itemized bid sheets, the itemized bid sheets included in the bidding documents shall not be completed and may be removed. If both are completed and submitted, only the computer-generated itemized bid sheets will be recognized and used as the official bid. The product of the bidder's unit price and the Commission's quantity for that same line number will be used in comparing bids and in the successful bidder's contract. Computer-generated itemized bid sheets not meeting the above requirements may cause the bid to be considered irregular and subject to rejection.

102.7.12 Subcontractor disclosure. For contracts of more than $2,000,000 each bidder shall submit with each bid a disclosure of the subcontracts that have a subcontract value that is equal to or greater than twenty percent of the total project bid or subcontracts that are greater than or equal to $2,000,000. The disclosure of subcontracts must include the name of each subcontractor, the category of work that each subcontractor will perform (e.g. asphalt, concrete, earthwork, bridges...) and the dollar value of each subcontract. The information shall be disclosed on the form provided in the bidding documents. If that information is not available at the time of bid the bidder shall submit the "Subcontractor Disclosure Form" pages with MoDOT on or before 4:00 p.m. of the third business day after the bid opening date, directly to the Design Division, Missouri Department of Transportation, 105 W. Capitol Avenue, P.O. Box 270, Jefferson City, Missouri 65102-0270. Telefax transmittal to MoDOT will be permitted at fax no. 573-526-3261. Failure to disclose this information may result in a bid being declared non-responsive. The complete signed original documents do not need to be mailed to MoDOT, but the bidder shall have it available if requested by the Design Division or the engineer.

102.8 Irregular Bids. Bids that are not completed in accordance with the bidding documents, that show any omissions, false statements or certifications, alterations of form, additions not called for, conditional or alternate bids unless called for, irregularities of any kind, or that are not responsive to the request for bids may be rejected. Bids combining or otherwise tying sections or projects not listed in the bidding documents, as being in combination will be rejected. Any comment in the bid limiting or qualifying the reserved right of the Commission to make awards that will be to the best interest of the State will constitute an irregular bid.

102.8.1 A bid will be considered irregular and may be rejected as non-responsive if any of the unit bid prices are mathematically or materially unbalanced to the detriment of the Commission.

102.8.2 A bid submitted on the "Request For Bid" document and that is otherwise complete and fully executed, will not be deemed an irregular bid and will not be subject to rejection by the Commission.

102.9 Bid Guaranty. No bid will be considered unless accompanied by a certified check or cashier's check on any bank or trust company insured by the Federal Deposit Insurance Corporation, payable to the Director of Revenue, Credit State Road Fund, for no less than five percent of the amount of the bid, or by a bid bond secured by an approved surety or sureties in

accordance with Secs 103.4.2 and 103.4.3, for no less than five percent of the amount of the bid. Bid bonds shall be submitted on forms furnished by the Commission, which are available on MoDOT's website. Bid bond forms will be furnished to the prospective bidder upon request. Electronically produced copies of the bid bond form may be utilized, however, the exact wording used on the Commission furnished form shall be included in full and without deviation. Bid bond forms shall be complete and correct at the time of submittal or the bid may be considered non-responsive. Only the version of the bid bond form provided with the request for bid shall be submitted, unless the Request for Bid or Notice of Bid Opening authorizes the use of alternate bid bond forms. The bid bond power of attorney shall be an original document, not a facsimile. Bids accompanied by bid guaranties that are not in accordance with this section or accompanied by bid bonds that are not issued by an approved surety will be rejected.

102.9.1 Bidders submitting the bid electronically, may choose to submit a paper bid guaranty in accordance with 102.9, or an electronic bid bond with the bid prior to the time designated for receiving bids.

102.9.1.2 The electronic bid bond shall be part of the digitally signed bid and be verified via digital encryption by the bonding agent.

102.10 Delivery of Bids. Paper bids shall be submitted in the special envelope furnished by the Commission. The blank spaces on the envelope shall be filled in to clearly indicate the contents. If an envelope other than the one furnished by the Commission is used, the envelope shall be similarly marked to clearly indicate the contents. If sent by mail, the sealed bid shall be addressed to the Commission at the address specified in the bidding documents. All bids shall be filed prior to the time and at the place specified in the notice to contractors. Bids received after the time for opening of bids will be returned to the bidder unopened.

102.10.1 Bids submitted via the internet shall use the latest version of Trns Port Expedite Bid, and be submitted using the BidExpress website. All bids shall be filed prior to the time specified in the notice to contractors. BidExpress will not accept any bids submitted after that time.

102.10.2 If a bidder submits a bid via the Internet and also submits a paper bid the paper bid will be considered the official bid from the bidder.

102.11 Withdrawal or Revision of Bids. A bidder may withdraw or revise a paper bid after the bid has been deposited with the Commission provided the revision or the request for such withdrawal is received in writing by the Commission, at the address specified in the bidding documents, before the time set for opening bids.

102.11.1 Any request for withdrawal of a bid submitted electronically shall be completed through Bid Express® prior to the time set for opening bids. The bidder may submit multiple electronic bids on the same project, however, the last bid received supersedes all previous submittals.

102.12 Combination Bids. Combination bids for two or more projects may be required or permitted and will be designated as such in the bidding documents.

102.12.1 On required combinations, the bidder shall complete the bid for each project included in the combination.

102.12.2 On permitted combinations, the bidder will be allowed to combine all projects in the combination or bid each project separately. The Commission reserves the right to determine

the combination and make awards of the bids, that will be to the best interest of the State, provided they are in conformance with the request for bids and the bids submitted.

102.12.2.1 When the bidder submits computer-generated itemized bid sheets for projects listed in permitted combination, the bidder shall include all itemized bid sheets for all projects. For convential paper bids, the bidder shall indicate "No Bid" for all projects not bid. For electronic bids, the bidder shall leave the project's bid items blank for all projects not bid.

102.12.2.2 To combine all projects in a permitted combination, the bidder shall enter a complete bid for each project and mark the "All or None" box in the Bid. By marking "All or None" and combining all the projects, the bidder will be awarded all the projects in the combination or none of the projects.

102.12.2.3 If the bidder does not combine all of the projects, bids for the individual projects will be considered separately. The bidder shall complete the bid for each project the bidder desires to bid.

102.12.3 Two or more projects awarded in combination will be considered to be covered by a single contract. If during construction an item for which a unit price has not been bid is encountered in one project of a combination, the unit price bid for the same item in another project of the combination will apply, unless there is conclusive proof that conditions are changed significantly to effect a definite increase or decrease in the cost of the operation.

102.13 Public Opening of Bids. Bids will be opened and the bid totals read publicly at the time and place indicated in the notice to contractors.

102.14 Disqualification of Bidders. Any one or more of the following reasons may be considered as being sufficient for the disqualification of a bidder and the rejection of the bid or bids:

(a) More than one bid is received for the same work from an individual, firm or corporation under the same or different name, or from different firms or corporations having common ownership, control or "Principals" that are affiliated, as described in Sec 108.13. However, a bidder may submit a bid as principal and as a subcontractor to some other principal or may submit a bid as a subcontractor to as many other principals as the bidder desires and by so doing will not be liable to disqualification in the intent of this specification.

(b) There is reason for believing that collusion exists among the bidders. Participants in such collusion will receive no recognition as bidders for any future work of the Commission until any such participant has been reinstated.

(c) The bidder or any officer, shareholder, owner or director of the bidder, has been terminated, debarred or suspended as an eligible contractor or bidder by any agency of the USA, the State of Missouri or any other state or any city, county, municipal corporation or other political subdivision.

(d) The Commission has determined or finds that the bidder is not responsible.

(e) The bidder is a person or firm not a resident of Missouri and has failed or refused to comply with the Missouri laws relating to nonresident or transient employers or is prohibited by Section 285.230 RSMo from contracting for or performing labor on a Missouri public works project.

102.15 Right to Reject Bids. The Commission reserves the right to reject any bid and also the right to reject all bids. All bids may be rejected for, without limitation, the following reasons:

(a) If in the opinion of the majority of the members of the Commission, the lowest bid or bids are excessive.

(b) The advertised bidding or contract documents are inadequate, ambiguous or otherwise deficient in any respect.

(c) The construction of all or any part of the project is no longer required.

(d) The bids received indicate that the quality requirements in the bidding or contract documents were overstated.

(e) The bidding and contract documents did not include all of the intended evaluation factors.

(f) The bids were not independently arrived at in open competition.

(g) There are indications that any of the bids were collusive or were submitted in bad faith.

(h) The bids received did not provide sufficient competition to ensure adequate price.

102.16 Opportunity to Partner. The successful bidder may enter into a cooperative partnership agreement with the Commission for the contract. The objective of this agreement will be the effective completion of the work, on time and to the standard of quality that will be a source of pride to both the Commission and the contractor. The "Partnering" agreement will not affect the terms of the contract. The agreement will only establish an environment of cooperation between the parties.

102.16.1 Partnering objectives can be achieved on an informal basis, the preferred method, or if a formal partnering agreement is desired, a initial training session is recommended to initiate the formal partnership agreement. The cost of this training will be borne equally between the Commission and the contractor.

102.16.2 Participation in "Partnering" will be voluntary and will not be required of the contract. The costs associated with "Partnering" shall not be included in the bid.

102.17 Disadvantaged Business Enterprise Program Bidding Requirements. Refer to the General Provisions for DBE Program Requirements.

102.18 Certifications. The bidder makes the following certifications by signing and submitting the bid.

102.18.1 Certification Regarding Affirmative Action and Equal Opportunity. If the bidder does not meet all requirements set forth in sub-paragraphs (a), (b) and (c) of this section, then the bidder shall submit a statement indicating which elements the bidder has complied with and those elements that are not in fact true and correct. The statement shall be on company letterhead, signed by the bidder and inserted inside the submitted bid. The bidder shall provide the following elements:

(a) The bidder has developed and has on file at each of the bidder's establishments affirmative action programs pursuant to 41 CFR Part 60-2.

(b) The bidder has participated in a previous contract or subcontract subject to the equal opportunity clause set forth in 41 CFR 60-1.4 and Executive Order No. 11246.

(c) The bidder has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance Programs or the Director's designate or the EEO Commission, all reports due under the applicable filing requirements contained in 41 CFR, Part 60-1.

This certification applies to and shall be executed by each bidder or proposed subcontractor if the proposed contract or subcontract on this project will equal or exceed $10,000.00. This certification will also apply to any contractor or subcontractor that has contracts or subcontracts on federally assisted projects in any 12-month period that have or can reasonably be expected to have an aggregate total value exceeding $10,000.00, 41 CFR 60-1.5(a)(1). The prime contractor shall assure that each of the subcontractors that meet the criteria will also execute and submit this certification to the Commission.

102.18.2 Certification Regarding Disbarment, Eligibility, Indictments, Convictions or Civil Judgments. The president or authorized official of the bidder, under penalty of perjury under the laws of the USA, shall certify that, except as noted in the exceptions, the company or any person associated therewith in the capacity of owner, partner, director, officer, principal investor, project director, manager, auditor or any position involving the administration of federal funds:

(a) Is not currently under suspension, debarment, voluntary exclusion or determination of ineligibility by any federal agency.

(b) Has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three years.

(c) Does not have a proposed debarment or suspension pending.

(d) Has not been indicted, convicted or had a civil judgment rendered against any of the listed parties by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

102.18.2.1 If there are any exceptions, the bidder shall submit the exceptions on company letterhead, signed by the bidder and inserted inside the bid submitted.

102.18.2.2 Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility.

102.18.2.3 For any exception noted, the bidder shall indicate to whom it applies, the initiating agency, and dates of action.

102.18.2.4 Providing false information may result in criminal prosecution or administrative sanctions.

102.18.3 Certification Regarding Anti-Collusion. In accordance with 23 USC 112, the bidder shall certify, under penalty of perjury, that the bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this contract.

102.18.4 Certification Regarding Lobbying Activities. In accordance with 31 USC 1352, the bidder shall certify that:

(a) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan or cooperative agreement.

(b) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress or an employee of a member of Congress in connection with this federal contract, grant, loan or cooperative agreement, the bidder shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with the instructions.

102.18.4.1 This certification shall be a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification shall be a prerequisite for making or entering into this transaction imposed by 31 USC 1352. Any person who fails to file the required certification will be subject to a civil penalty of no less than $10,000 and no more than $100,000 for each such failure.

102.18.4.2 The bidder also agrees by submitting a bid that the bidder shall require that the language of this certification be included in all subcontracts that exceed $100,000, and that all such subrecipients shall certify and disclose any lobbying activities accordingly.

102.18.5 Certification Regarding Missouri Domestic Products Procurement Act. This certification will only apply to state-funded projects as noted on the cover of the Request for Bid. The bidder's attention is directed to Sections 34.350 through 34.359 RSMo 2000, which requires all manufactured goods or commodities used or supplied in the performance of the contract or any subcontract to be manufactured, assembled or produced in the USA. Sections 34.350 through 34.359 RSMo will not apply if the total bid is less than $1000.00.

102.18.5.1 Section 34.355 RSMo requires the vendor or bidder to certify compliance with Section 34.353 RSMo and, if applicable, Section 34.359 RSMo at the time of bidding and prior to payment. Failure to comply with Section 34.353 RSMo during performance of the contract and to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

102.18.5.2 The bidder shall certify that all the specified goods or products for which this bid was solicited are manufactured, assembled or produced in the USA. If there are any exceptions, the bidder shall submit a list of the exceptions on company letterhead, signed by the bidder and attached to the inside of the bid submitted. The list shall include the pay item number and the location where the item is manufactured. The bidder shall identify any of the exceptions in the list that are specified goods or products that are treated as manufactured, assembled or produced in the USA under an existing treaty, law, agreement or regulation of the USA regarding export/import restrictions and international trade.

102.18.5.3 The bidder shall notify the contact listed in the Request for Bid of any specified goods or products that cannot be manufactured, assembled or produced in the USA in sufficient quantities or in time to meet the contract specifications.

102.18.5.4 The bidder shall certify that the bid complies with all provisions of Section 34.350 *et seq* RSMo.

102.19 Preference for Missouri Products. By virtue of statutory authority, a preference will be given, on projects other than federal aid projects, to material, products, supplies, provisions and all other articles produced, manufactured, made or grown within the State of Missouri, where same are of a suitable character and can be obtained at reasonable market prices in the state and are of a quality suited to the purpose intended and can be secured without additional cost over foreign products or products of other states.

SECTION 103

AWARD AND EXECUTION OF CONTRACT

103.1 Consideration of Bids. After bids are opened and the bid totals read, the bids will be compared on the basis of the summation of the products of the approximate quantities shown in the bid schedule multiplied by the unit bid prices. The results of such comparisons will be immediately available to the public.

103.2 Award of Contract.

103.2.1 The contract will be awarded by the Commission to the lowest responsible bidder as soon as practical after the opening of the bids. The responsibility of the contractor will be determined by the Commission based on, but not limited to, previous work, financial standing and record for the payment of the contractor's obligations. No contract will be executed by the Commission unless the contractor has on file with the Commission a valid contractor questionnaire in accordance with Sec 102.2. The successful bidder will be notified by letter mailed to the address shown on the bid that the bid has been accepted and the contract has been awarded.

103.2.2 The Commission may make a contingent award to the second lowest responsible bidder. If the low bidder fails to execute the contract in accordance with this section, the contract will be offered to the second lowest responsible bidder in accordance with the contingent award made by the Commission within 25 days after the original award date. The second low bidder shall then be bound by the same requirements as specified for the lowest responsible bidder. The Notice to Proceed may be extended by the number of days between the original Commission award and the day the contract has been mailed to the second lowest responsible bidder. If the contract time for completion of the work is set solely by completion date, then the completion date may be extended by the number of days between the original Commission award and the day the contract was mailed to the second lowest responsible bidder. The new contract will be adjusted to reflect these changes, if appropriate.

103.2.2.1 If the second low bidder is not able to perform the work at the unit prices bid by the second low bidder due solely to the fact that the low bidder is unable to perform as a subcontractor in accordance with Sec 103.6, and the second low bidder based its bid upon an offer by the low bidder to perform subcontract work for the second low bidder, the second low bidder will not be required to forfeit its bid bond, providing the second low bidder submits to the Commission proper documentation that its bid was based on the low bidder's quote. Proper documentation shall include, but is not limited to, a letter to the Commission describing the work that was to be performed by the low bidder as a subcontractor, all quotes the contractor received and all documentation for the work in question.

103.2.2.2 When the second low bidder is required to execute the contract and the low bidder was a DBE firm that was identified on the second low bidder's Identification of Participating DBE's, the second low bidder shall attempt to replace the low bidder with another DBE firm. If the second low bidder is unsuccessful in attaining another DBE firm for that work, the second low bidder shall certify that a good faith effort was made in accordance with 49 CFR 26.53. The DBE goal will be adjusted accordingly.

103.2.3 When the tabulated lowest bids are equal in all respects, including price, the successful bidder will be determined by a formal drawing of lot limited to the tied bidders. Tied bidders will be notified of the location and time of the drawing and have the opportunity to attend, but attendance will not be required.

103.2.4 Alternate Bids. In making the award, if alternate bids have been requested, that alternate that will be in the best interest of the Commission will be used.

103.2.5 Federal Concurrence. If the USA or any agency thereof is paying all or a portion of the cost of construction of the project, the award made by the Commission will be tentative until proper federal concurrence therein has been received.

103.3 Return of Bid Guaranty. The bid guaranty, whether check or bid bond, of the low bidder will be retained until the contract has been executed by the successful bidder, all insurance requirements have been met and a satisfactory contract bond furnished. The check of the low bidder will then be returned. The bid guaranty of the second low bidder will be returned when the Commission has determined that award will not be made to that firm. If errors or irregularities appear in the bid of either of the two lowest bidders that creates doubt as to the status of such a bid, the bid guaranties of other bidders may be retained. When the two lowest bidders have been definitely established, the checks of the other bidders will be returned. Any bid bond furnished as a bid guaranty will be returned only upon request of the bidder furnishing the bid bond. If an award is not made, all checks will be returned to the bidders.

103.4 Contract Bond Required.

103.4.1 The successful bidder shall, at the time of the execution of the contract, furnish a contract bond in a sum equal to the contract price. The bond shall be to the State of Missouri, in a form and with surety or sureties acceptable to the Commission, to ensure the proper and prompt completion of the work in accordance with the provisions of the contract, the contractor's compliance with all of the terms and conditions of the contract, all obligations on the contractor's part to be performed and payment of all obligations to the Commission by the contractor, including any indebtedness, liquidated or unliquidated, for any reason relating to or arising from the contract, and to ensure payment for all labor performed and material consumed or used in the work. The bond, if executed by a surety that is a corporation organized in a state other than Missouri, shall be signed by an agent or broker licensed by the Missouri Department of Insurance. All bids shall be submitted on the basis of furnishing a contract bond executed by an approved surety or sureties, as herein set out. The surety's liability under the contract bond and contract shall not be limited to the penal sum as set forth in the contract bond. The surety shall be liable and responsible to the Commission for the contractor's entire performance and of all obligations arising under or from the contract, which shall include, but is not limited to any change orders issued under the contract that increase the cost of the contract.

103.4.2 Certificate of Authority. Any surety company that proposes to execute a bond as required by the contract shall have on file with or furnish to the Commission a certified copy of the surety's certificate of authority to transact business in the State of Missouri.

103.4.3 Surety Acceptability. A surety will be acceptable to the Commission if the surety is listed in the current United States Department of the Treasury, Fiscal Service, Department Circular 570, *Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies.* Individual contract bonds may not be in excess of the underwriting limitation listed in the circular.

103.5 Execution of Contract. The individual, partnership, corporation or joint venturer awarded the contract shall return the prescribed copies of the contract and bond, properly executed, to the office of the Commission within 15 days after the unexecuted contract has been mailed to the bidder. No bid shall be considered binding upon the Commission until the contract has been awarded by the Commission, and until the successful bidder has executed and returned the contract and a satisfactory bond. No contract will be effective until the contract has been executed by all parties.

103.6 Failure to Execute Contract. Failure to execute the contract or to file an acceptable contract bond within 15 days after the unexecuted contract has been mailed to the bidder will be just cause for the cancellation of the award and the forfeiture of the bid guaranty. A bidder failing to file an acceptable bid or contract bond from an approved surety or failing to execute the contract within the time provided resulting in a cancellation of the award to that bidder, disqualifies that bidder, and any other firm having common ownership or control with that bidder, from performing any work on the Commission project or projects that are the subject of that bid, as a prime contractor, a subcontractor or a supplier.

SECTION 104

SCOPE OF WORK

104.1 Intent of Contract. The contractor shall complete the work described and furnish all resources required to complete the work under the contract.

104.2 Differing Site Conditions. If differing site conditions are encountered during the progress of the work, the discovering party shall promptly notify the other party in accordance with Sec 104.4. No further disturbance of the site or performance of the affected work shall be done after the alleged differing site conditions are noted, unless otherwise directed in writing by the engineer.

104.2.1 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 whether or not an adjustment of the contract is warranted.

104.2.2 No contract adjustment that results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice as specified in Sec 104.4.

104.2.3 No contract adjustment will be allowed under this section for any effects caused on unchanged work.

104.2.4 Payment will be determined in accordance with Sec 109.4 and adjustments in contract time will be determined in accordance with Sec 108.14.

104.3 Changes in the Work. When considered necessary to satisfactorily complete the project, the engineer reserves the right to provide written notice to the contractor, at any time during the contract, to change quantities or make other alterations for which there are no provisions included in the contract. Such changes in quantities and alterations in the work will not invalidate the contract, require consent of the surety, nor release the contract surety, and the contractor agrees to perform the work as altered. Alterations of plans or of the nature of the work will not involve work beyond the termini of the proposed construction, except as may be necessary to satisfactorily complete the project.

104.3.1 If the alterations or changes in quantities do not cause a significant change in the work to be performed under the contract, payment for the altered work will be determined in accordance with Sec 109.3 for all work for which a contract unit price exists, and Sec 109.4 for all other work. The basis for the adjustment for work for which no unit price exists 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. If the directed changes require additional time to complete the contract, adjustments in the contract time will be determined in accordance with Sec 108.7.

104.3.2 If the alterations or changes in quantities cause significant change in the work under the contract as defined in Sec 101, an adjustment will be made to the contract. This adjustment will occur whether such alterations or changes are in themselves a significant

change in the work or by affecting other work, causing such other work to become significantly different. Payment will be determined in accordance with Sec 109.3 or Sec 109.4. 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. If the directed changes require additional time to complete the contract, adjustments in the contract time will be determined in accordance with Secs 108.7 or 108.14, as appropriate.

104.4 Notification of Differing Site Conditions and Changes in the Work. The contractor shall promptly notify the engineer of alleged changes to the contract due to differing site conditions, altered work beyond the scope of the contract, or actions taken by MoDOT that changed the contract terms and conditions. Within five business days of the date the alleged change or action was noted, the contractor shall provide the following information to the engineer in writing:

(a) The date of occurrence and the nature of circumstances of the occurrence.

(b) The name, title and activity of MoDOT personnel having knowledge of the matter.

(c) The identity of any documents and the substance of any oral communications involved.

(d) The basis for a claim of accelerated schedule performance.

(e) The basis for a claim that the work is not required by the contract.

(f) The particular elements of contract performance for which additional compensation, compensable or excusable delay may be sought under this section including:

(1) Pay items that have been or will be affected.

(2) Labor or material, or both, that will be added, deleted or discarded and what equipment will be idled, extended or required on the project.

(3) Delay and disruption in the manner and sequence of performance that has been or will be caused.

(4) Estimated adjustments to contract prices, delivery schedules, staging and contract time.

(5) Estimate of the time within which MoDOT must respond to the notice to minimize cost, delay or disruption of performance.

104.4.1 For good cause the engineer may extend the time for the contractor to provide any part of the above information.

104.4.2 The failure of the contractor to provide notice under Sec 104.4 will constitute a waiver of any and all claims that may arise as a result of the allegations.

104.5 Response to Notification of Differing Site Conditions and Changes in the Work. Following submission of the Sec 104.4 notification to the engineer, the contractor shall continue diligent prosecution of the work not affected by the notification, unless directed otherwise in writing by the engineer. Within ten business days after receipt of notification, the engineer will respond in writing to the contractor to:

(a) Confirm or deny that a change occurred and specify future action to be performed by the contractor and the engineer, or

(b) Advise the contractor that specific additional information is needed and the date the information is to be received by the engineer for further review. For good cause, the engineer may extend the time for the contractor to provide any of the additional information. The engineer will respond within ten days of receipt of additional information from the contractor. Any adjustments made to the contract will not include increased cost or time extensions for delay if the contractor fails to provide the information required in the notice or the requested additional information by the date specified.

104.6 Contractor Proposals for Value Engineering. Value Engineering change proposals (VECP's) shall provide a product of equal or improved quality that will reduce the project cost, improve safety or decrease the time required to complete the project. The contractor is encouraged to submit to the engineer, in writing, VECP's for modifying the plans, specifications or other requirements of the contract. Proposed modifications shall not impair, in any manner, essential functions or characteristics of the project, including but not limited to, service life, economy of operation, ease of maintenance, desired appearance, design or safety standards, and shall not significantly delay the completion of the project. Proposals shall be submitted to the engineer in advance of the work to be performed with sufficient time allowed for review. The Commission will not be liable to the contractor for failure to accept or act upon the proposal nor for any delays to the work attributable to any such proposal.

104.6.1 Submitting Proposals. Value engineering proposals shall be submitted on the proper form, available on MoDOT's web site, and shall contain the following information:

(a) A description of both the existing contract requirements for performing the work and the proposed changes.

(b) A detailed estimate of the cost of performing the work under the existing contract and under the proposed change.

(c) A statement of the time within which the engineer must make a decision thereon, including the probable effect the proposal will have on the contract completion time.

(d) An itemized list of the contract items of work affected by the proposed changes, including any quantity variation attributable thereto.

(e) A description of any previous use or submission of the same proposal by the contractor, including dates, job numbers, results, and/or outcome of proposal if previously submitted.

104.6.2 Conditions. The engineer will only consider VECP's that meet the following conditions.

104.6.2.1 Contractors may submit value engineering proposals that propose changes in the basic design of a bridge or a pavement, except for pavement and shoulder type. Value engineering proposals will be considered only when the proposal will not significantly delay the completion of the project.

104.6.2.2 The contractor shall continue to perform the work in accordance with the requirements of the contract until a change order incorporating the value engineering proposal has been approved, unless otherwise directed by the engineer. If a change order has not been approved by the date upon which the contractor's value engineering proposal specifies that a

decision thereon should be made, the proposal shall be deemed rejected, unless the time allowed for a decision has been extended by mutual agreement of both parties.

104.6.2.3 The Commission expressly reserves the right to adopt a value engineering proposal as standard practice for use on other contracts administered by the Commission. If an accepted value engineering proposal is adopted as design policy, only contractors submitting such a proposal will be eligible for compensation pursuant to this section until the proposal is incorporated into design policy, and in that case, only as to those contracts awarded to the contractor prior to submission of the accepted value engineering proposal. Value engineering proposals identical or similar to previously submitted proposals will be eligible for consideration and compensation under the provisions of Sec 104.6 if the identical or similar previously submitted proposals were not adopted as design policy by the Commission, or included in the present contract. Subject to the provisions contained herein, the state or any other public agency will have the right to use all or any part of any submitted value engineering proposal without obligation or compensation of any kind to the contractor, except as noted in Sec 104.6.2.4.

104.6.2.4 The contractor may request the return of information submitted with a value engineering proposal if the proposal is rejected, provided this request is in writing and submitted with the proposal. If the proposal is accepted, this request will be void, and the Commission may use or disclose in whole or in part any information necessary to utilize the proposal.

104.6.2.5 Prior to approval, it may be necessary for the engineer to modify a proposal, with the concurrence of the contractor, to make the proposal acceptable. If any modification increases or decreases the net savings resulting from the proposal, the contractor's 50 percent share will be determined on the basis of the proposal as modified.

104.6.2.6 Four copies of the complete proposal shall be submitted to the engineer for review. The contractor may submit a conceptual proposal for approval stating the basic proposal and approximate cost savings in order to provide the contractor with the opportunity to submit an idea without large initial development costs if the proposal is rejected. Approval or disapproval of proposals will be granted within ten days of receipt of the proposal.

104.6.2.7 A proposal will be disqualified if additional information is not provided at the request of the engineer. This will include design computations, field investigations, results, surveys, etc.

104.6.2.8 Reimbursement for modifications to the proposal to adjust field or other conditions will be limited to the total amount of the contract bid prices. Rejection, limitation or reimbursement shall not be a basis for any claim against the Commission.

104.6.2.9 The contractor will have no claim to additional costs or delays, including development costs, loss of anticipated profits, or increased material or labor costs, if the proposal is rejected.

104.6.2.10 The engineer will decide whether or not to consider a proposal. The basis for proposal rejections will include excessive review requirements, evaluation or investigation, or if the proposal is inconsistent with project design policies or criteria.

104.6.3 Payment. Payment will meet the following conditions:

104.6.3.1 The engineer will be the sole judge of the acceptability of a value engineering proposal and of the estimated net difference in construction costs from the adoption of all or any part of such a proposal. The engineer may adjust contract prices if, in the judgment of the

engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.

104.6.3.2 If the contractor's cost reduction is accepted in whole or in part, such acceptance will be by a change order, which will specifically state that the change order is executed in accordance with Sec 104.6. Such change orders will incorporate the changes in the plans and specifications necessary to permit the value engineering proposal or any part of the proposal that has been accepted, to be put into effect, and will include any conditions upon which the Commission's approval thereof is based, if the approval of the Commission is conditional. The change order will also set forth the price for performing those items of work affected by the change order and the estimated net savings in the cost of performing the work attributable to the value engineering proposal in the change order, and will further provide that the contractor will be paid 50 percent of the actual net savings of the construction costs at the completion of the work affected by the change order.

104.6.3.3 The amount and time specified in the change order will be considered full compensation to the contractor for the value engineering proposal and for the performance of that work. All costs incurred by the contractor to develop, design, and implement a value engineering proposal shall be at the contractor's expense and no compensation will be provided to develop the proposal. All costs incurred by MoDOT to review and implement the VECP will be at the Commission's expense.

104.6.3.4 Only the contractor may submit proposals and be reimbursed for savings, however the contractor may submit proposals for any approved subcontractor.

104.7 Maintenance of Traffic Operations During Construction.

104.7.1 The contractor shall maintain the flow of all traffic over the project, at the contractor's expense, unless otherwise specified in the contract. Provisions for local traffic, including bicycle and pedestrian traffic, shall be made by the contractor, at the contractor's expense, at all times during construction, unless otherwise specified in the contract.

104.7.2 If detours for through traffic are to be provided by the Commission at the Commission's expense or designated on the plans to be constructed and maintained by the contractor around the entire project or any major portion of the work during construction, the engineer may open for use by traffic any uncompleted portions of the project, and will have the option either to maintain such portions with Commission forces or to require the contractor to maintain the detours. If the contractor is required to maintain such opened portions, the contractor will be reimbursed for the cost of such maintenance in accordance with Sec 109.4. However, when the time set for completion, including any authorized extension of time, has elapsed, the contractor will be responsible for all further costs of maintaining such opened portions, whether the open portions are maintained by the contractor's forces and equipment or by Commission forces.

104.7.3 If the contractor is required to maintain the flow of traffic over the project, including constructed detours or bypasses, such maintenance shall be construed to mean the satisfactory handling of all traffic to maintain safe and substantially uninterrupted flow. The contractor shall maintain the roadbed substantially free of ruts, holes and detrimental surface deformations. The contractor shall control the height of vegetation for traffic safety, and shall provide and maintain in a safe condition approaches, crossings and intersections with abutting property to the highway, railroads, trails, roads and streets. Such maintenance shall be performed as necessary from the day the contractor starts construction operations under the contract. Snow removal will not be required of the contractor.

104.7.4 When it is to the advantage of the Commission, projects involving pavement may be opened to traffic as soon as the surface has been sufficiently cured, even though the shoulders and other items of work may not be completed. Such projects or portions of projects will be inspected and a partial acceptance made as to the work completed, and the contractor will be required to complete any remaining construction items under traffic.

104.7.5 When the engineer opens for use by traffic any unfinished portions of the project as provided under Secs 104.7.2 or 104.7.4, the contractor will be compensated in accordance with Sec 109.4 for any documented actual additional costs approved by the engineer. Any documented inefficiencies, delays or other time related effects approved by the engineer will be an excusable delay only as provided by Sec 108.14.

104.8 Surfacing for Temporary Use. Surfacing for the temporary use of traffic shall, when directed by the engineer, be applied to areas necessary to provide satisfactory ingress and egress to private property, across the project or along the roadway. Such surfacing will be authorized if traffic cannot be handled satisfactorily by the contractor maintaining a reasonably smooth and drainable earth surface in accordance with Sec 104.7. The quantity, quality and type of surfacing will be designated by the engineer. Acceptance of the material will be based on visual examination.

104.8.1 Measurement of material furnished for temporary surfacing will be made in accordance with Sec 310.5, excluding any deductions for moisture.

104.8.2 The quantity of surfacing for temporary use authorized and accepted will be paid for at the contract unit price. Regardless of overruns or underruns, no adjustment will be made in the price for this material.

104.8.3 Preparing a subgrade, spreading or laying surfacing for temporary use, maintaining the surfacing, future removal or scarifying, if necessary, shall be at the contractor's expense.

104.9 Rights In and Use of Material Found on the Work. The contractor, with written approval from the engineer, may use in the construction of the project any stone, gravel or sand found in the excavation that conforms to the requirements of the specifications for material. The Commission will not pay for damages or for anticipated profits on account of the expected use of any material shown on the plans as existing and later found to be nonexistent or unfit for use. Payment will be made to cover the removal of such material at the contract unit price for excavation of the classification under which the excavation properly belongs. If such material is used instead of material that was to have been furnished at the expense of the contractor under the terms of the contract, the contractor shall furnish sufficient suitable material, at no additional expense to the Commission, to complete the roadway. Unless authorized in writing by the engineer, the contractor shall not excavate or remove from within the right of way any material that is not within the excavation limits as indicated by the slope and grade lines.

104.10 Mailboxes, Signs and Markers.

104.10.1 Mailboxes. Mailboxes within the limits of the project that will interfere with operations shall be removed by the contractor before work is begun. Mailboxes shall be set temporarily where the mailbox will be accessible to both the carrier and the patron, and shall be properly reset by the contractor at designated locations before final acceptance of the work by the Commission. Mailboxes damaged by the contractor shall be replaced by the contractor at the contractor's expense. All mailbox supports set by the contractor shall be in accordance with AASHTO guidelines. Mailboxes may be reset by the contractor using only approved supports furnished either by the postal patron or by the engineer. No direct payment will be made for the removal, relocation or replacement of mailboxes or supports.

104.10.2 Signs and Markers. Signs and markers within the limits of the project that will interfere with operations shall be removed by the contractor before work is begun. All such signs and markers required for safe control and guidance of traffic shall be temporarily reset, readily visible to traffic, and shall be maintained in a satisfactory condition. If the nature of the work makes temporary relocation impractical, the signs shall be placed on movable supports and maintained in accordance with Sec 616. Stop and yield signs at intersecting roadways shall be maintained where signs are readily visible to traffic at all times. Other individual signs may be moved aside only when signs interfere with actual operations. All required signs and markers shall be properly located to control traffic at all times. Final removal of signs and markers will be permitted only when permanent signs and markers have been installed. All signs and markers will remain the property of the Commission and shall, after final removal, be delivered without damage to locations within the project limits as directed by the engineer. No direct payment will be made for removal, relocation, temporary supports, maintenance or final removal and delivery of signs and markers.

104.10.3 Right of Way Markers and Plaques. All right of way marker posts or markers damaged by the contractor's operations shall be replaced at the contractor's expense, and installed in accordance with Sec 602 and the standard drawings. Replacements for damaged right of way marker plaques will be furnished by the Commission.

104.11 Final Clean Up.

104.11.1 Before final acceptance, the contractor shall restore to a condition equal to or better than that existing prior to construction all property, both public and private, within, adjacent to and beyond the limits of construction that have been disturbed or damaged by prosecution of the work. Restoration work shall be at the contractor's expense.

104.11.2 When specified in the contract, the contractor shall open and clean all existing channels and culverts from all excess mud or silt, drift, brush or debris of any kind. Any material excavated in cleaning existing channels will be paid for as roadway excavation of like classification. Any material excavated in cleaning out culverts that are used in place will be paid for at the contract price per each structure. However, only the initial excavation will be paid for, and any subsequent cleaning required prior to final acceptance shall be at the contractor's expense.

104.12 Requirements for Projects Involving Work On Railroad Right of Way.

104.12.1 All work on, over or under railroad right of way shall be performed by the contractor without damage to the facilities and property of the railroad or the railroad's lessees, and in strict observance of requirements of the engineer and railroad for the safety of railroad property and operations. The contractor shall maintain the existing or proposed depth and section of the ditches along the tracks of railroads through the limits of construction. Any sediment resulting from new construction shall be promptly removed.

104.12.2 The contractor shall indemnify the railroad for any loss or damage to the railroad property, right of way, tracks and other facilities, hereafter referred to as property, caused by acts or omissions of the contractor, or any of the contractor's subcontractors, in performing work on a project, whether on, over, under or in the vicinity of railroad property. In the event the contractor fails to restore railroad property immediately to a condition acceptable to the railroad when any such loss or damage to railroad property is called to the contractor's attention by the railroad, then the railroad may perform such corrective work at the contractor's cost.

104.12.3 Prior to beginning any work on, over or under railroad right of way, the contractor shall furnish to the railroad's engineer evidence of "Commercial Auto Liability Insurance," "Commercial General Liability Insurance" and "Railroad Protective Liability Insurance" in accordance with the contract documents and special provisions, which will establish the limits of each type of insurance.

104.12.4 The term "loss or damage" as used in Sec 104.12 will include, but not be limited to, the erosion and silting of, water damage to, and the accidental or intentional placing or dropping of objects on railroad property.

104.12.5 Work performed on, over or under railroad right of way will be subject to the inspection of railroad representatives.

104.12.6 The Commission will make provisions for any temporary removal of railroad or railroad lessees' facilities that are to be moved.

104.12.7 The contractor shall in no way hold the Commission liable for delay caused by securing the railroad company's approval of construction features involved in placing any grade separation structure, the removal of any structures over the railroad's right of way, shoring plans that could affect the railroad's facilities or operation or any changes from the design plans that appear desirable during construction.

104.12.8 Construction requirements for projects involving work upon railroad right of way will be as follows.

104.12.8.1 Fiber optic, communications, control systems and other types of cable may be buried on railroad property. Before beginning work, the contractor shall contact the railroad to determine if cable systems are buried on the railroad property to be used by the contractor.

104.12.8.2 The contractor shall provide a minimum construction vertical clearance of 21 feet 6 inches (6.5 m) above the top of rails and a minimum construction lateral clearance of 10 feet (3 m) from the center line of track to the nearest temporary construction falsework. The contractor shall provide the minimum final lateral and vertical clearances as shown on the plans.

104.12.8.3 The contractor shall arrange with the railroad for installation of any temporary crossings.

104.12.8.4 The contractor shall notify the railroad and shall arrange for adequate protection of railroad property and operations under the following situations and conditions:

(a) When performing any work or operations closer to railroad tracks than the minimum construction clearances specified in Sec 104.12.8.2 and set forth in schedule of rates in Sec 104.12.9.

(b) When performing work on those portions of the structure located over or under railroad tracks.

(c) When using any temporary crossing of railroad tracks and right of way.

104.12.8.5 Arrangements for flagging shall be made in accordance with the contract documents and special provisions.

104.12.8.6 When performing work near the railroad tracks, the contractor shall, at the end of each work day, inspect the track area and clean up any debris. When the project is completed,

the contractor shall remove any debris or material dropped on the railroad from the railroad right of way.

104.12.9 Requirements for projects involving rates of pay and other related costs for protective services required by the railroad will be as follows.

104.12.9.1 The services of one track foreman or other railroad employees qualified to protect railroad operations in accordance with railroad's rules, will be required during any construction operations involving direct interference with railroad tracks or traffic, the fouling of railroad operating clearances or reasonable probability of accidental hazard to railroad traffic. Services of additional railroad personnel for flagging protection will be required whenever such protection is needed when required by the railroad's authorized railroad representative.

104.12.9.2 The rate of pay per hour for each flagger shall be the prevailing hourly rate for the class of employee used in accordance with labor agreements and schedules in effect at the time the work is performed.

104.12.9.3 One and one-half times current hourly rate shall be paid for overtime, Saturdays and Sundays. Two and one-half times current hourly rate shall be paid for holidays.

104.12.9.4 Wage rates are subject to change at any time by law or by agreement between the railroad and railroad employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges, such as labor surcharges, are also subject to change. If the wage rates or additional charges are changed, the contractor shall pay on the basis of the new rates and new charges.

104.12.10 Requirements for projects involving reimbursement for work upon railroad right of way will be as follows.

104.12.10.1 The contractor shall reimburse the railroad for all costs of installation, maintenance and removal of any temporary crossings.

104.12.10.2 The contractor shall reimburse the railroad for all costs of protective services, such as flaggers, required by the railroad for the protection of railroad property and operations in accordance with Sec 104.12.9. All such costs shall be determined on the basis of rates of pay and other related costs actually in existence at the time protective services are furnished. Payments will be made by deduction of funds from the contractor's periodic progress payments.

104.12.10.2.1 Reimbursement shall cover the full eight hour day during which any flagger is furnished, unless the flagger can be assigned to other railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagger is engaged in other work.

104.12.10.2.2 Reimbursement will be required for any day not actually worked by said flagger following assignment to work on the project for which the railroad is required to pay the flagger and that could not reasonably be avoided by the railroad by assignment of such flagger to other work, even though the contractor may not be working during such time.

104.12.10.3 The contractor shall reimburse travel expenses to the railroad in addition to the rate of pay indicated in Sec 104.12.9.

104.12.10.4 The railroad shall have the right to bring an action directly against the contractor to recover any loss or damage sustained by the railroad by reason of the contractor's breach of agreements contained in Sec 104.12.

104.12.10.5 In addition to such remedies of the railroad, the Commission will withhold from final payment due to the contractor the amount reasonably necessary to reimburse the railroad for such loss or damage, or for performing such work.

104.12.11 All costs incurred by the contractor in complying with Sec 104.12 will be considered covered by the contract unit price for various items of work included in the contract.

104.13 Warranty of Electrical and Mechanical Equipment.

104.13.1 On all contracts requiring the contractor to furnish and install electronic, electrical or mechanical equipment, the contractor shall obtain, assign and furnish to the Commission written manufacturer's warranties for all such equipment consistent with those provided as customary trade practice. Additionally, a contractor's warranty providing for satisfactory in-service operation shall be provided for a minimum period of six months from the date of project acceptance.

104.13.2 If the equipment fails to perform satisfactorily for the specified length of time, the manufacturer or the contractor shall replace or repair the equipment as necessary to restore required performance. MoDOT labor costs resulting from equipment replacement will not be charged to the manufacturer or the contractor.

SECTION 105

CONTROL OF WORK

105.1. Authority and Duties of Commission in Contract Administration. The Commission is subject to comply with and to have the power and authority provided in, among others, the following laws in execution of the Commission's authority over all state transportation programs and facilities:

(a) 226.130 RSMo providing for Commission to have supervision of highways and bridges constructed, improved and maintained, in whole or part, by the aid of state monies and of highways constructed in whole or in part by the aid of monies appropriated by the United States government, so far as such supervision is consistent with the acts of Congress relating thereto, to let all contracts for the construction or improvement of state highways;

(b) 226.150 RSMo to comply with acts of Congress and with any of the rules or conditions made by the federal agencies to secure funds allocated to this state;

(c) 227.030 RSMo to have power to make all final decisions affecting the work provided for therein;

(d) 227.100 RSMo, to furnish and prescribe contracts for construction of the work provided for in that Chapter;

(e) 227.107 RSMo to prescribe the form of contracts and make all final decisions concerning the performance of work under a design-build highway project contract including claims for additional time and compensation;

(f) 23 USC §112 to have supervision over construction of certain projects funded in whole or part by monies appropriated by the United States Government;

(g) 23 USC §302 to have adequate powers to discharge to the satisfaction of the Secretary of Transportation of the United States Government the duties required by Title 23 of the United States Code and;

(h) 23 CFR §1.3 providing that the Commission shall be authorized by the laws of the State of Missouri to make all final decisions for the state in all matters relating to contracts and agreements and to take such other actions on behalf of the state as may be necessary to comply with the federal laws and regulations in Part 23 of the CFR.

105.1.1 Authority of the Engineer. The engineer will decide all questions that may arise as to the quality, quantity and acceptability of material furnished and the work performed, and as to the rate of progress of the work; all questions that may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the contractor; all questions of classification; the proper compensation for the performance or breach of the contract; and all claims or controversies of any character whatsoever in connection with or growing out of the construction, whether claimed under the contract, under force account, under quantum merit or otherwise. The engineer's estimates and decisions shall be final, binding, and conclusive upon all parties to the contract.

105.1.2 Suspension of Work. The engineer may suspend the work wholly or in part in accordance with these provisions. The suspension may be given verbally, but will be followed in writing immediately.

105.1.2.1 The engineer may suspend the work wholly or in part for the contractor's failure to:

(a) Correct conditions unsafe for the project personnel or general public.

(b) Carry out provisions of the contract.

(c) Carry out orders of the engineer.

105.1.2.2 Suspensions in accordance with Sec 105.1.2.1 will be nonexcusable and noncompensable.

105.1.2.3 Work may also be wholly or partially suspended for:

(a) Periods necessary due to unsuitable weather.

(b) Conditions considered unsuitable for the prosecution of the work.

(c) Any condition or reason determined to be in the public interest.

105.1.2.4 Suspensions in accordance with Sec 105.1.2.3 may be excusable and may be compensable as determined by the engineer in accordance with Sec 108.

105.2 Plans and Working Drawings. The plans will be supplemented by such working drawings as are necessary to adequately control the work. Working drawings for structures shall be furnished by the contractor and shall consist of such detailed plans as may be required to adequately control the work and which are not included in the plans furnished by the Commission. Required working drawings must be accepted by the engineer, and such acceptance shall not relieve the contractor of any responsibility under the contract for the successful completion of the work.

105.3 Conformity with Contract Documents. All work performed and all material furnished shall be in accordance with the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown in the contract documents.

105.3.1 If the engineer finds the material or the finished product in which the material was used is not in accordance with the contract documents, but that reasonably acceptable work has been produced, a determination will be made if the work will be accepted and remain in place. In this event, the engineer will document the basis of acceptance by contract modifications that may provide for an appropriate adjustment in the contract price for such work or material as deemed necessary to conform to the determination based on engineering judgment.

105.3.2 If the engineer finds the finished product to be unacceptable as a result of the contractor's method of operation or the use of unacceptable material, the work shall be removed and replaced or otherwise corrected by the contractor at the contractor's expense.

105.4 Coordination of Contract Documents. The contract documents are essential parts of the contract, and a requirement occurring in one shall be as binding as though occurring in all. Contract documents are intended to be complementary and to describe and provide for a complete work. In case of discrepancy among contract documents, the governing ranking will be:

(a) Job Special Provisions

(b) Project Specific Drawings

(c) General Provisions

(d) Supplemental Specifications

(e) Standard Specifications

(f) Standard Drawings

(g) Bid Items or Quantities

In case of discrepancies, calculated dimensions will govern over scaled dimensions.

105.4.1 All contractors, including subcontractors, shall not take advantage of any apparent error or omission in the contract documents. If an error or omission is discovered, the engineer shall be notified promptly so corrections and interpretations necessary to fulfill the intent of the contract can be made. A failure to give notice shall render the effects of any error or omission noncompensable and any delay nonexcusable.

105.5 Cooperation by Contractor. The contractor shall maintain one set of contract documents at the work site at all times.

105.5.1 The contractor shall give the work the constant attention necessary to facilitate the progress thereof and shall cooperate with the engineer and other contractors in every possible way.

105.5.2 The contractor shall have at the work site at all times, as the contractor's agent, a competent individual capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of work being performed, whom shall receive instructions from the engineer. That individual shall have full authority to execute orders or directions of the engineer without delay and to promptly supply material, equipment, tools, labor and incidentals as may be required.

105.6 Cooperation Between Contractors. The Commission reserves the right at any time to contract for and perform other or additional work on or near the project limits covered by the contract.

105.6.1 If separate contracts are awarded within the limits of any one project, each contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractors. Full cooperation of the contractors involved, in careful and complete coordination of their respective activities in the area, will be required.

105.6.2 Each contractor and surety involved shall assume all liability, financial or otherwise, in connection with the contract and shall indemnify and save harmless the State, the Commission, and the Commission's agents, employees and assigns from any and all damages or claims that may arise because of inconvenience, delay or loss experienced, caused or contributed to by the contractor because of the presence and operations of other contractors working within the limits of the same project.

105.6.3 The contractor shall schedule and conduct work and shall place and dispose of material being used so as not to interfere with or cause unnecessary inconvenience or delay to

the operations of other contractors within the limits of the same project. The contractor shall join work with other contractors as required by the contracts or in a manner acceptable to the engineer and shall perform the work in proper sequence with the work of the other contractors. When necessary for proper prosecution of work, each contractor shall permit the other contractors access through overlapping construction areas and shall permit the use of any access or haul roads.

105.7 Cooperation With Utilities. All utility facilities and appurtenances within the project limits shall be located or relocated by the utility owner, unless specified otherwise. Locations of these utilities will be provided by utility owners and may not be exact, particularly with regard to underground installations.

105.7.1 The contractor shall cooperate with utility owners and the engineer in the location and relocation of utility facilities to minimize effects on the contractor's work, interruption to utility service and duplication of work by the utility owners. Facilities or appurtenances that are to remain in place during construction shall be accounted for and protected by the contractor's work procedures. Utility location and relocation shall be made in accordance with 7 CSR 10-3, Utility Location and Relocation.

105.7.2 In the event utility services are interrupted as a result of damage within the project limits, the contractor shall notify the appropriate utility authorities and cooperate with the utility owners until service has been restored. Work shall not begin around fire hydrants until provisions for continued service have been made and approved by the local fire authority.

105.7.3 When the failure of the owners of utility facilities to cooperate and coordinate their work with that of the contractor results in actual delay to the contractor in the overall completion of the contractor's work, such delay will be considered in the count of working days or date specified for completion as contractor's sole compensation from the Commission, provided the contractor notified the engineer in writing of the delay at the time the delay occurred.

105.7.4 The contractor shall use every precaution to prevent damage to all public and private utilities. Repairs to damaged utilities caused by negligent or wrongful acts or omissions on the part of the contractor shall be corrected at the contractor's expense. Damaged facilities shall be restored to a condition similar or equal to that existing before the damage occurred.

105.7.5 Should there be located within the right of way any public or private utility facilities that are to remain in place and that will interfere with the contractor's proposed methods of operation, the contractor, in cooperation with the engineer, shall make all necessary arrangements with the owner for any temporary or permanent removal or relocation of such facilities desired for the contractor's convenience. Any cost involved shall be at the contractor's expense.

105.7.6 If utility facilities or appurtenances are found that are not noted in the contract documents and could not be discovered in accordance with Sec 102.5, the engineer will determine whether relocation of the utility is necessary to accommodate construction. If relocation is necessary, the engineer will make necessary arrangements with the utility owner and the contractor. Compensability and excusability will be determined under Secs 104 and 108.

105.8 Construction Stakes, Lines and Grades. Surveying and setting of construction stakes will be performed by the engineer, except when a bid item for this work is included in the contract.

105.8.1 Staking by the Engineer. When surveying and setting construction stakes is the responsibility of the engineer, the following will be applicable.

105.8.1.1 The contractor shall give the engineer reasonable notice of intent to perform work in a particular area of the project in order to afford the engineer sufficient time to set construction stakes establishing lines, slopes and profile grade. For roadway work, the engineer will set construction stakes establishing lines, slopes and profile grade and will furnish the contractor with all necessary information relating to these lines, slopes and grades. These stakes and marks will constitute the field control by and in accordance with which the contractor shall establish other necessary controls and perform the work. For structures, the engineer will stake and reference those centerlines and layout lines used as dimensional references on the plans and will provide a benchmark at each structure location. The engineer will provide and mark haunching information for the contractor's use in forming of all bridge decks. The contractor shall provide all other lines, locations, alignment, grade elevations and any other necessary controls by use of engineering instruments or other tools or methods as required to build the structure.

105.8.1.2 The contractor shall preserve of all stakes and marks, and if any of the construction stakes or marks are carelessly or willfully destroyed or disturbed by the contractor, the cost of replacing the stakes or marks may be charged against the contractor and deducted from the payment for the work.

105.8.1.3 The contractor shall furnish and deliver at the contractor's expense the size, quality and quantity of stakes required by the engineer. If the stakes have not been delivered at the time and place required for use, the engineer may purchase the stakes and deduct the entire cost from any compensation due the contractor.

105.8.1.4 Upon the written request of the engineer, the contractor shall furnish such assistance as may be necessary for the purpose of making measurements and for driving stakes. The Commission will reimburse the contractor by regular payment estimate for assistance by the contractor's employees that has been requested in writing by the engineer prior to its actual performance.

105.8.2 Surveying and Staking by the Contractor. When a bid item for construction surveying is included in the contract, the contractor shall provide the necessary surveying and staking for the successful prosecution of work in accordance with Sec 627.

105.9 Authority and Duties of Resident Engineer. As the immediate representative of the Commission, the resident engineer has direct charge of the engineering details of each construction project and is delegated commensurate authority for the administration of the project. The resident engineer may reject defective material and suspend and reject any work that is being improperly performed. The resident engineer will have no authority to modify the contract except in accordance with the contract documents or when expressly authorized by the Commission.

105.10 Inspection of Work. All material and each part or detail of the work will be subject to inspection by the engineer. The engineer shall be allowed unlimited 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.

105.10.1 If requested by the engineer, 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 standards required by the contract documents. If the work thus exposed or examined proves acceptable, the uncovering, the removing, recovering or making good the parts removed will be paid for in

accordance with Sec 109. If the work so exposed or examined proves unacceptable, the uncovering, removing, recovering or making good the parts removed shall be at the contractor's expense.

105.10.2 Any work done or material used without inspection by an authorized Commission representative may be ordered removed and replaced at the contractor's expense.

105.10.3 If any unit of government or political subdivision pays all or a portion of the cost of the work covered by the contract, the unit's respective representatives shall have the right to inspect the work.

105.10.4 When any work is being done on, over or under railroad right of way or adjustments are being made to any public or privately-owned utility facility, the respective representatives shall have the right to inspect the work.

105.10.5 Inspections authorized in Secs 105.10.3 and 105.10.4 will not make any of these agencies a party to the contract or affect the rights of the parties to the contract.

105.10.6 Adequate provisions for lighting, meeting the prior approval from the engineer, shall be provided by the contractor to permit satisfactory construction and inspection of all work done and material produced.

105.10.7 Final Inspection. Upon presumptive completion of the entire project, the engineer will make an inspection. If all construction contemplated by the contract has been completed to the engineer's satisfaction, that inspection will constitute the final inspection. The engineer will make the acceptance for maintenance upon completion of the final inspection. The engineer will notify the contractor in writing of acceptance for maintenance as of the date of the final inspection, with the exception of items covered by item specific performance bonds. Final acceptance will take place within a maximum of 30 days of receipt of final documentation from the contractor.

105.10.7.1 Following the final inspection, the contractor, subcontractors and suppliers will be relieved of any new or additional liability to third parties for personal injury, death or property damages which may be alleged to result from the design or construction of the work, unless additional work on the right of way will be required by the engineer.

105.10.7.2 Nothing in Sec 105.10.7 shall be deemed to excuse the contractor of liability or responsibility for any personal injury, death or property damages which may have occurred prior to the final inspection of the work.

105.11 Unauthorized and Defective Work.

105.11.1 All changes in the work or departures from the plans, except those due to reclassification of excavation material, will be considered unauthorized and at the contractor's expense unless, before proceeding with the work, the contractor has a copy of an order record signed by the engineer, or a change order signed by all parties whose signatures are provided for, except the federal engineer. These forms will contain complete detailed instructions regarding the proposed changes. Any departure from the instructions contained in such a written order will be considered unauthorized.

105.11.2 The engineer may order unauthorized work removed and replaced at the contractor's expense.

105.11.3 All construction and materials that have been rejected or declared unsatisfactory shall be remedied or removed and replaced in an acceptable manner by the contractor at the

contractor's expense. Upon failure of the contractor to remedy or remove and properly dispose of rejected material or work, or to replace them immediately after receiving written notice from the engineer, the engineer may employ labor to rectify the work, and the cost of rectification will be deducted from any payment due or which may become due the contractor.

105.12 Load Restrictions.

105.12.1 The contractor's movement of equipment and vehicles over bridges and pavements within the limits of the project will be subject to the load limit regulations for highways as prescribed by state statutes in effect when the movement occurs, and the contractor shall acquire special permits from the Commission prior to the movement of any such equipment or vehicles with a gross weight (mass) in excess of the load limits permitted by statute. All costs of obtaining special permits shall be at the contractor's expense, unless the special permit will be required by a restriction first imposed after the contractor has submitted the bid on the project. Outside of project limits, width, length, height and weight (mass) limitations as prescribed by state statutes shall be adhered to by the contractor during the movement of equipment and vehicles over any part of the state highway system, to include project exceptions, and the contractor shall not move or operate any such equipment or vehicles that exceed any statutory limitation without special permits from the Commission. All costs of obtaining special permits shall be at the contractor's expense. Material receipts issued by the engineer will not indicate compliance with any weight (mass) restriction regulations. All permits required for movement over highways other than those that are state owned or maintained shall be obtained by the contractor from the respective authority at the contractor's expense.

105.12.1.1 Special permits will not be required for the movement of construction equipment over any part of a bridge or pavement that is constructed or rehabilitated in the contract.

105.12.1.2 All movement will be subject to the same conditions and regulations established by the Commission for movements under special permits with the following additional requirements:

(a) Bridge decks shall be protected by planking of uniform thickness for the full tread width of track.

(b) All concrete in the bridge shall have achieved design strength.

(c) No more than one unit at a time may be moved over the structure.

(d) Equipment shall be centered on centerline of structure during movement.

(e) Adequate provisions shall be made to prevent marring of the pavement surface or the loss of surface texture.

(f) Portland cement concrete pavement shall have achieved the strength required for opening to all traffic.

(g) Adequate provisions shall be made to assure uniform load distribution at the edges of the pavement.

(h) All movements shall be made under the supervision of the resident engineer.

105.12.1.3 Movement of equipment over bridges or pavement not constructed under the contract, but located within the limits of the contract, will be subject to all requirements of this section, and a special permit will be required.

105.12.2 Track or crawler-type equipment having a gross weight (mass) of 40,000 pounds (18.144 Mg) or less, evenly distributed over the treads, may be moved over bridges not posted for lesser loads or over rigid-type pavements without special permits. Such equipment having a gross weight (mass) in excess of 40,000 pounds (18.144 Mg) shall have a special permit before moving. Crawler-type equipment having a gross weight (mass) in excess of 75,000 pounds (34.020 Mg) will not be permitted on bridges or rigid type pavements unless authorized by the engineer.

105.12.3 Track or crawler-type equipment that is subject to unequal distribution of weight (mass), such as cranes and paving mixers and which have a gross weight (mass) in excess of 18,000 pounds (8.165 Mg) but less than 40,000 pounds (18.144 Mg), may be operated upon bridges not posted for lesser loads and rigid type pavements, provided special precautions satisfactory to the engineer are taken to distribute the weight (mass) evenly over the treads. Such equipment in excess of 40,000 pounds (18.144 Mg) will require a special permit from the Commission.

105.12.4 The contractor shall not move or operate any type of equipment of such weight (mass) or so loaded that the equipment will cause damage to highway facilities either being constructed or in existence. Equipment and vehicles with steel lugs will not be permitted to operate directly on bridges or pavements at any time.

105.12.5 When it is required that material from roadway or borrow excavation be hauled across existing pavement, the contractor may move the material across the pavement with equipment that results in overweight loading, provided the following requirements are met at the contractor's expense:

(a) The contractor and the engineer shall select the location or locations where the crossing over the existing pavement is to be made. The width of the crossing shall be clearly marked on the pavement by painted lines and the contractor's equipment will be required to operate within the limits of the marked crossing.

(b) The contractor shall obtain written permission, including the description of the location of the crossing, from the engineer prior to movements of overweight loads across the existing pavement.

(c) The existing pavement shall be kept open at all times for highway traffic except for short periods of time when individual pieces of equipment are crossing the pavement. The pavement shall be kept reasonably free from earth or other material during hauling operations and shall be cleaned off and kept clean during periods when no hauling across the pavement is in progress.

(d) The pavement and shoulders within the crossing area shall be maintained by the contractor in a condition satisfactory to the engineer.

(e) The contractor shall provide signs and flaggers to direct traffic when hauling across the pavement.

(f) If any hauling across the pavement is done at night, the contractor shall provide adequate lighting to illuminate the crossing.

(g) If the existing pavement at the crossing is to be used in place after the contract is completed, the contractor shall, upon completion of the hauling operations, remove the existing shoulders, pavement and base between the limits of the crossing and replace the

pavement with the same type, width and thickness of shoulders, pavement and base existing prior to the beginning of hauling operations.

(h) The contractor shall construct and maintain all necessary bypasses or temporary connections required for the proper handling of traffic during removal and replacement of the pavement in the crossing area.

105.12.6 Nothing contained herein or in any special permit will relieve the contractor of liability for any damage caused to highway facilities from the movement or operation of equipment and vehicles over the highway system.

105.13 Maintenance of the Work. The contractor shall maintain the work during construction until the work is accepted. This maintenance shall be prosecuted such that the roadway or structures are kept in satisfactory condition at all times.

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

105.13.2 No direct payment will be made for maintenance of the work before the work is accepted.

105.14 Failure to Maintain Roadway or Structure. If the contractor's performance at any time fails to comply with the provisions of Sec 105.13, the engineer will notify the contractor of such non-compliance. If notice is provided verbally, notice will be promptly confirmed in writing. If the contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the engineer may immediately proceed to maintain the project, and the entire cost of this maintenance will be deducted from monies due or to become due the contractor.

105.15 Acceptance.
The contractor may request that the engineer inspect the following completed sections of work for acceptance at any time during the prosecution of the project:

(a) Any section 0.5 mile or more in length.
(b) Any section 0.5 mile or more in length in one direction of a divided highway.
(c) A complete bridge.
(d) An intersection traffic signal system. Partial acceptance may be made for signal equipment prior to the 30 day testing period though any required performance tests and/or guarantees shall remain applicable.
(e) Devices intended to be used for traffic safety and control. Acceptance of traffic safety devices is limited to guardrail, impact attenuation barriers, traffic signal items, signs, delineators, lighting, concrete barrier walls, concrete bridge parapet, bridge railing, guard cable, crash cushions and fence, which are permanently installed in their final position in accordance with the contract documents.

Upon inspection, if the engineer finds that the section has been completed in accordance with the contract, the engineer will accept that section as being complete and the contractor will be relieved of further responsibility for that section.

105.15.1.1 If the contract contains seasonal items, such as sodding, painting or such items as might delay the final completion of the project, a partial acceptance of the completed portion may be made prior to completion of the entire project. If the engineer finds upon inspection that the completed work is in acceptable condition, the contractor will be notified in writing

and after such notice has been given, the contractor will be relieved of the duty of maintaining and protecting that work to the extent provided in the notice.

105.15.1.2 Nothing in the contract shall be construed to relieve the contractor of full responsibility for making good any non-latent defect in work or material found on any section of work prior to final acceptance of the entire project, to alter in any manner the method of payment prescribed in the contract or to constitute a waiver of any claim the Commission might have against the contractor on the entire project.

105.15.2 Final Acceptance. Upon receipt by the engineer of all project documentation required by the contract and verification by the engineer that all material incorporated into the work has been properly inspected, the engineer will make the final acceptance upon completion of the final inspection and acceptance for maintenance in accordance with Sec 105.10.7.

105.15.2.1 When required by the contract, project documentation shall consist of the following: Contractor's Affidavit Regarding Settlement of Claims (Form C-242), Final Change Order, DBE Participation List and Final Verification, FHWA-47 (Statement of Materials and Labor Used By Contractors on Highway Construction Involving Federal Funds), Affidavit – Compliance with the Prevailing Wage Law.

105.15.2.2 Final acceptance will not excuse the contractor's liability or responsibility to the Commission for any latent defects in the work or material incorporated into the work, or for claims relating to any work or material incorporated into the work.

105.16 Controversies and Claims for Adjustment.

105.16.1 The contractor shall follow the requirements of Sec 104.4 for written notification of differing site conditions or significant changes in the character of work and Sec 108.15 for suspensions of work directed by the engineer. If, after receiving a written reply from the engineer the contractor considers additional compensation is due, the contractor shall file a written notice of claim for additional compensation within 60 days after completing the work in question. The procedure for filing a claim shall be as described in Secs 105.16.6 through 105.16.8.2.

105.16.2 If the contractor considers additional compensation may be due for work or material not clearly covered in the contract or not ordered in writing by the engineer as change in the work, the contractor shall notify the engineer in writing of the intention to make a claim before beginning the work in question. If notification is not given and the engineer is not afforded proper facilities by the contractor to provide necessary inspection and for keeping strict account of actual costs, the contractor agrees to waive any claims for additional compensation. Notice by the contractor and the fact that the engineer has kept account of the costs shall not be construed as substantiating the validity of the claim. The contractor shall file a written notice of claim for additional compensation within 60 days after completing the work in question. The procedure for filing the claim shall be as described in Secs 105.16.6 through 105.16.8.2.

105.16.3 Claims for additional time or compensation under Sec 104 shall be filed within 60 days after completing the work in question. Claims for additional time or compensation in accordance with Sec 108 shall be filed within 60 days after receipt of the engineer's determination. The procedures for filing and the disposition of the claim or controversy shall be in accordance with Secs 105.16.3 through 105.16.9.

105.16.4 If the contractor has any claim against the Commission arising out of the provisions of the contract or the performance or non-performance thereunder, and is not within the scope of Sec 105.16.1 through 105.16.3, the claim shall be filed within the earlier of:

(a) 90 days after the date of final inspection under Sec 105.10.7.

(b) 60 days after the date of declaration of default or termination of the contract under Sec 108.

(c) As provided in Sec 108 upon a termination of the contract for convenience of the Commission.

105.16.5 If the Commission has a claim against the contractor that in any way arises out of the provisions of the contract or the performance or non-performance thereunder, the claim will be filed within 90 days after the date of final inspection under Sec 105.10.7, except for claims of a differing site condition or defects in work or material under Sec 105.15.2.2.

105.16.6 If the claim is against the Commission, the written claim shall be personally delivered or sent by certified mail to the Office of the Secretary of the Commission in Jefferson City, Missouri. If the claim is against the contractor, the written claim will be personally delivered or sent by certified mail to the contractor at the address shown under the signature on the contract. If the claim is against an assignee, the written claim will be personally delivered or sent by certified mail to the assignee at the address shown on the accepted notice of assignment.

105.16.6.1 This provision shall not extend the claim filing time limits of the contractor or the Commission in the case of a differing site condition or a suspension of the work under Sec 108.

105.16.6.2 This provision will not limit the Commission's claim filing time for defects in work or material not discovered within 90 days after the date of final inspection under Sec 105.10.7 or other claim rights not discovered within 60 days of filing of any claim by the contractor, or as to any work covered by a separate or continuing performance bond specified to survive project final acceptance.

105.16.7 Claim submittals on the contractor's part shall be in sufficient detail, as specified in this section, to enable the engineer to determine the basis for additional time or compensation. The following minimum information shall accompany each claim submitted:

(a) A detailed factual statement of the claim, providing all necessary dates, locations and items of work affected by the claim.

(b) The date actions resulting in the claim occurred or conditions resulting in the claim became evident.

(c) A copy of the notice of claim filed by the contractor for the specific claim.

(d) The name, title and activity of each MoDOT employee knowledgeable about facts that gave rise to such claim.

(e) The name, title and activity of each contractor or subcontractor employee knowledgeable about facts that gave rise to such claim.

(f) The specific provisions of the contract supporting the claim, and a statement why the provisions support the claim.

(g) The identification of any pertinent documents, and the substance and date of any material oral communication relating to the claim.

(h) A statement whether the additional compensation or extension of time is based on the provisions of the contract, including breach of contract, or other basis in law outside the contract, with detailed support of the basis a claim may be made outside the terms of the contract.

(i) If an extension of time is also sought, the specific days for which the extension is sought and the basis for such a claim as determined by an analysis of the construction schedule.

(j) The amount of additional compensation sought with an itemized accounting of that amount.

105.16.8 Required Certification of Claims. The claim submittal shall include the contractor's written certification, under oath, attesting to the following:

(a) The claim is made in good faith.

(b) Supporting data is accurate and complete to the contractor's best knowledge and belief.

(c) The amount requested includes all costs related to the specific claim and that no additional related claims will be submitted.

(d) The amount of the claim accurately reflects the contractor's actual cost incurred. To comply with this requirement, the contractor shall file a notarized statement with the claim, in which the statement includes at least the following:

AFFIDAVIT FOR CLAIM

State of (_____)
ss.
County of (_____)

(Name of the Person Making this Affidavit), the (State Your Title or Position in the Firm) [hereinafter "the Affiant"], of (State the Name of the Firm Submitting the Claim), [hereinafter "the Claimant"], being first duly sworn upon his or her oath, states as follows:

1. This Affidavit is made upon the personal knowledge of the Affiant, and is authorized by the Claimant to be made in behalf of the Claimant.

2. The Claim being submitted by the Claimant to the Missouri Highways and Transportation Commission at this time on (Route), (County), (Job No.), is made in good faith. The Affiant has the requisite knowledge of the Claim, and the facts and supporting data, to be able to make this Affidavit and accurately attest to the facts herein.

3. The amount requested includes all costs related to the claim or controversy and that no additional claim will be submitted.

4. All documents, records, charts, schedules, computer programs and printouts, and other data of any nature or description, which are submitted in support of this Claim pursuant to Sec 105.16.7 of the *Missouri Standard Specifications for Highway Construction* are

accurate and complete in all respects, to the best knowledge and belief of the Affiant and the Claimant.

5. Under all applicable penalties of state or federal law for perjury, submitting a false affidavit or statement, fraud, stealing or other falsification, the Affiant hereby certifies that this Claim for extra compensation and time, if any, submitted herewith by the Claimant for work performed on this contract, is a true and accurate statement of the Claimant's actual costs incurred and time sought in performing the contract work, and is fully documented and supported under and pursuant to the contract described above between the Claimant and the Missouri Highways and Transportation Commission.

6. This Affidavit is given in compliance with Sec 105.16 of the *Missouri Standard Specifications for Highway Construction*, which forms a part of that contract.

_____
(Type or Print Name of the Claimant)

By:_____
(Affiant's Legal Signature)

Subscribed and sworn to before me, a notary public, on this ____ day of _____, (year).

_____
Notary Public

My commission expires: _____

105.16.8.1 The person signing the claim and affidavit under oath shall be the owner if the contractor is a sole proprietorship, shall be a general partner if the contractor is a partnership, shall be an authorized agent if the contractor is a limited liability company or joint venture, or shall be an authorized officer or member of the board if the contractor is a corporation.

105.16.8.2 No claim shall be deemed filed under the contract by a contractor until:

(a) Every item of information provided for in Sec 105.16.7 has been provided or the contractor makes an affirmative, unequivocal statement as part of its claim that no record, document or information provided for by a specific provision of that section exists, and

(b) The sworn certification precisely as set forth in Sec 105.16.8 has been made and delivered to the Secretary of Commission.

105.16.9 Duty to Supply Records and Information Regarding a Claim or Controversy. The Commission is subject to a legal duty to pay no additional sum to a contractor after a contract has been entered into and performed in whole or part, or any claim under any agreement or contract made without express authority of law. The Commission is under the further legal duty to pay only those claims that are supported, which have a basis in the terms of the contract and applicable state law as fairly construed and which are in accordance with prevailing principles of public contract law. The Commission is obligated by law to set forth both the contractual basis and the cost data, supported by audit, of actual costs incurred by the contractor to substantiate any amount paid.

105.16.9.1 Record Retention. From and after the date the contractor determines a cause has occurred for a possible contract adjustment, and notwithstanding any policy the contractor

may have regarding record retention, the contractor shall retain all files, records and data, in whatever form, that relate to the contractor's bid and performance of the contract relevant to the possible contract adjustment.

105.16.9.2 Duty to Supply Information. During the review of the claim, the contractor and the contractor's subcontractors and suppliers shall cooperate with MoDOT and shall provide, if requested, access to the documents that contain the below information, to the extent requested by MoDOT and MoDOT's attorneys or consultants. Request for some, but not all, of the following information will not preclude MoDOT's right to request the same or additional information at another time:

(a) Job site superintendent and foreman diaries, daily time sheets and daily reports of all types.

(b) Any union agreements applicable to the work, including any amendments.

(c) Insurance, welfare and benefits records.

(d) Earnings records of salaried and hourly personnel charged as costs of the work.

(e) Payroll tax and withholding returns.

(f) Material invoices, purchase orders, and all material and supply acquisition contracts.

(g) Material cost distribution worksheets.

(h) Records for all equipment whose use was included either in the bid or which was charged to the project. This should include internal equipment rates used for both purposes, as well as equipment leased from third parties and from affiliates and related parties. All lease or rental agreements shall be provided.

(i) Vendor rental agreements and contracts with subcontractors and suppliers.

(j) Payment records and invoices for subcontracted work.

(k) Canceled checks (payroll and vendors).

(l) Job cost reports, both periodic and final, and both the summary and supporting reports, for all costs charged to the contract and for any changes to the work, including any reports that compare estimated with actual costs.

(m) General ledger, general journal (if used) and all subsidiary ledgers and journals, including all supporting documentation pertinent to entries made in these ledgers and journals, whether paper or computer-maintained.

(n) Financial statements with all footnotes and attachments for all years in which the contractor performed work on the project.

(o) Depreciation records on all company equipment, and all documents used to develop the actual cost of owning and operating equipment used in the work.

(p) All documents that reflect the contractor's actual profit and overhead during the time the work was being performed, and for each of the two years prior to the beginning of the project.

(q) All bid records related to the preparation of the contractor's bid, including the final calculations on which the bid was determined.

(r) Worksheets, working papers and all other records used in or the product of preparation of the claim. This includes those showing the cost components claimed and how the amounts claimed were computed. Without limitation, this is intended to include personnel and equipment production analysis, schedule analysis, all data inputs used or developed for computer analysis or generation of the claim.

(s) Projected and actual personnel and equipment loading plans.

(t) Any internal budget for the project.

105.16.9.3 Confidentiality of Records. The contractor and, if applicable, the contractor's subcontractors and suppliers, shall deliver to MoDOT and MoDOT's attorneys or consultants, all information and documents requested, not withstanding any claim of confidentiality or proprietary interest in the records. MoDOT and MoDOT's attorneys and consultants will affirmatively act to protect the records and information from disclosure beyond those persons having a need to know the information for the purpose of making a decision regarding the claim, or for law enforcement purposes. The contractor shall identify and segregate any documents or information that the contractor considers particularly sensitive.

105.16.10 On any claim for additional compensation for work on the project, whether claimed under the contract, for a differing site condition, as a change in the work, for breach of the contract, for a positive representation by which the contract was induced or otherwise, the following items shall never be allowable or claimed directly or indirectly:

(a) Attorney fees, consultant or claims preparation costs, or costs related to litigation.

(b) Any item that would not be eligible for federal-aid participation under the provisions of 23 CFR 635.124, regardless of whether the project is one approved by the FHWA.

(c) Any item that would be an expressly unallowable cost under the provisions of 48 CFR Part 31, Subparts 31.1 and 31.2, or as it may be amended, superseded or replaced during the life of the contract.

105.16.11 Any claim, controversy or item of any claim or controversy not included in the writings required to be filed in Sec 105.16, or any claim included but not clearly defined and specifically set out, itemized and supported, or any notice or claim not filed within the time and in the manner provided in Sec 105.16, shall be forever waived, and shall neither constitute the basis of nor be included in any legal action, counterclaim, defense, set-off, arbitration or other alternative dispute resolution procedure mutually agreed upon between the parties.

105.16.11.1 The omission of any claim or of the detail required to be in a claim in accordance with Sec 105.16.7 will not be subject to cure by making the claim or supplying the details in any later court or alternative dispute resolution proceeding.

105.16.11.2 MoDOT has established a written procedure for handling contractor claims and controversies that provides the process for resolution of all claims and the engineer's final decision. The completion of that process and the engineer's final decision will be a condition precedent to any legal action, counterclaim, defense, set-off or arbitration concerning the matters claimed. Any claim or controversy, or any portion thereof that has not been presented

for handling in accordance with MoDOT's contractor claims and controversies procedure will not be subject to resolution in an alternate dispute resolution process.

105.16.12 MoDOT's review of a claim pursuant to Sec 105.16 will be in addition to the right or duty of MoDOT or the Commission to conduct audits or other reviews of a claim or contractor's books of account or operations otherwise provided by federal or state laws or the rules of civil procedure.

105.17 Venue. Any action concerning any matter, thing or dispute arising out of or relating to the terms, performance, non-performance or otherwise of the agreement, shall be filed in the Circuit Court of Cole County, Missouri. The parties agree that the contract is entered into at Jefferson City, Missouri, and substantial elements of the contract's performance will take place or be delivered at Jefferson City, Missouri, by reason of which the contractor consents to venue of any action by or against the contractor in Cole County, Missouri. The contractor shall cause this provision to be incorporated in all of the contractor's agreements with, and to be binding upon, all subcontractors in the performance of this agreement.

105.18 Arbitration.

105.18.1. Purpose. By adoption of 226.096 RSMo (L. 2003, HB 668), certain controversies or claims to which the Missouri Department of Transportation is a party that arises out of or relates to a contract awarded pursuant to subdivision (9) of subsection 1 of 226.130 (RSMo) subject to certain limits and preconditions are subject to, "be settled (sic) by arbitration administered by the American Arbitration Association under its Construction Industry Arbitration Rules, except as provided, in 226.096". Under the provisions of Chap. 435 RSMo arbitration is the subject of agreement between the parties to a contract. This section provides for incorporation of the, American Arbitration Association's, Construction Industry Arbitration Rules and Mediation Procedures (AAA Rules), amended and effective on the date arbitration is demanded and for their modification and revisions as permitted by the AAA Rules and Chap. 435 RSMo.

105.18.2. Incorporation. The AAA Rules are incorporated as part of the contract except as amended or excluded. The AAA Rules are further expressly amended or excluded as provided herein and as provided directly or indirectly by 226.096 RSMo (L. 2003, HB 668) and Chap. 435 RSMo.

105.18.3 Regular Track Procedures. The AAA Construction Industry Arbitration Rules, Regular Track Procedures, July 1, 2003 are amended as follows:

105.18.3.1 R-1. Agreement of Parties. Not revised.

105.18.3.2 R-2. AAA and Delegation of Duties. Not revised.

105.18.3.3 R-3. National Roster of Neutrals – Shall be replaced with the following:

In cooperation with the National Construction Dispute Resolution Committee the AAA shall establish and maintain a National Roster of Construction Arbitrators ("National Roster") and shall appoint arbitrators as provided first by the provisions of Missouri law, including 7 CSR 10-26, and then as provided in these rules. The term "arbitrator" in these rules refers to the arbitration panel, constituted for a particular case, whether composed of one or more arbitrators, or to an individual arbitrator, as the context requires.

105.18.3.4 R-4. Initiation under an Arbitration Provision in a Contract. Not revised.

105.18.3.5 R-5. Initiation under a Submission. Not revised.

105.18.3.6 R-6. Changes to Statement of Controversy or Claim - Shall be replaced with the following:

The contract between the parties provides for a Notice of Controversy or a Claim for adjustment to the contract prior to any demand for arbitration. Arbitration demands, issues, nature or amount of relief sought, shall not differ or be additional to that in the Notice of Controversy or Claim for contract adjustment provided for in the contract. There may not be a revision of the issues, nature of relief sought or increase in relief during or by way of any presentation of evidence during the arbitration. No award may be upon different issues or basis of relief or provide relief different in nature or greater in amount than contained in the Notice of Controversy or Claim given under the contract and stated in the demand for arbitration. No new or different controversy, claim or counterclaim may be submitted to the arbitrator except with the consent of both parties and the arbitrator and any consent must be clearly expressed, written and signed by the parties. There will be no amendments by implication.

105.18.3.7 R-7. Consolidation or Joinder - Shall be replaced with the following:

If Commission expressly agrees in writing with regard to multiple disputes arising under a particular contract, multiple demands may be consolidated so long as the relief sought in total does not exceed $328,011 in the principal relief sought, as adjusted on an annual basis effective January first of each year in accordance with the Implicit Price Deflator for Personal Consumption Expenditures as calculated pursuant to subsection 5 of section 537.610, RSMo. Demands to which Commission is not a party in direct privity of contract will never be joined. The issue of consolidation of claims and joinder of parties will not be arbitrable. Nothing in this section shall prohibit more than one demand for arbitration pursuant to the same contract, provided that each demand for arbitration arises from a separate claim based upon facts supporting a separate right of relief, filed with the Department and accepted by the department under the Missouri Department of Transportation's "Contractor Claims and Controversies Procedures". Neither shall a prime contractor be prohibited from filing a demand for arbitration arising from work, which was subcontracted provided that; (a) the claim was initially accepted by the department under "Contractor Claims and Controversies Procedures." and (b) would provide a right to contract adjustment separate from any claimed or which could be claimed by the prime contractor for it's sole benefit. However, subcontractors shall have no right to file a demand for arbitration with the Commission.

105.18.3.8 R-8. Jurisdiction. Not revised.

105.18.3.9 R-9. Mediation. Not revised.

105.18.3.10 R-10. Administrative Conference. Not revised.

105.18.3.11 R-11. Fixing of Locale. Not revised.

105.18.3.12 R-12. Appointment of Arbitrators – Delete paragraphs (a), (b), and (c) and replace with the following:

Arbitrators will be selected and appointed in accordance with 7 CSR 10-26.

105.18.3.13 R-13. Direct Appointment by a Party. Not revised.

105.18.3.14 R-14. Appointment by a Chairperson by Party-Appointed Arbitrators or Parties. Not revised.

105.18.3.15 **R-15. Nationality of Arbitrator in International Arbitration.** Not revised.

105.18.3.16 **R-16. Number of Arbitrators.** Not revised.

105.18.3.17 **R-17. Disclosure.** Not revised.

105.18.3.18 **R-18. Disqualification of Arbitrator.** Not revised.

105.18.3.19 **R-19. Communication with Arbitrator.** Not revised.

105.18.3.20 **R-20. Vacancies.** Not revised.

105.18.3.21 **R-21. Preliminary Hearing.** Not revised.

105.18.3.22 **R-22. Exchange of Information.** Not revised.

105.18.3.23 **R-23. Date, Time, and Place of Hearing.** Not revised.

105.18.3.24 **R-24. Attendance at Hearings.** Not revised.

105.18.3.25 **R-25. Representation.** Not revised.

105.18.3.26 **R-26. Oaths.** Not revised.

105.18.3.27 **R-27. Stenographic Record.** Not revised.

105.18.3.28 **R-28. Interpreters.** Not revised.

105.18.3.29 **R-29. Postponements.** Not revised.

105.18.3.30 **R-30. Arbitration in the Absence of a Party or Representative.** Not revised.

105.18.3.31 **R-31. Conduct of Proceedings.** Not revised.

105.18.3.32 **R-32. Evidence.** Not revised.

105.18.3.33 **R-33. Evidence by Affidavit and Posthearing Filing of Documents or Other Evidence.** Not revised.

105.18.3.34 **R-34. Inspection or Investigation.** Not revised.

105.18.3.35 **R-35. Interim Measures.** Not revised.

105.18.3.36 **R-36. Closing of Hearing.** Not revised.

105.18.3.37 **R-37. Reopening of Hearing.** Not revised.

105.18.3.38 **R-38. Waiver of Rules.** Not revised.

105.18.3.39 **R-39. Extensions of Time.** Not revised.

105.18.3.40 **R-40. Serving of Notice** – Paragraphs (a) and (b) shall be replaced with the following:

(a) Any papers, notices, or process necessary or proper for the initiation or continuation of an arbitration under these rules; for any court action in connection therewith, or for the entry of judgment on any award made under these rules, may be served on a party by mail addressed to the party or its representative at the last known address with return receipt or by personal service, in or outside the state where the arbitration is to be held, provided that reasonable opportunity to be heard with regard thereto has been granted to the party.

(b) The AAA, the arbitrator and the parties may also use overnight delivery with return receipt or electronic facsimile transmission (fax) to give the notices required by these rules. Facsimile transmission must require an acknowledgment that an entire legible transmission was received. Where all parties and the arbitrator agree, notices may be transmitted by electronic mail (email), or other methods of communication.

(c) Not revised

105.18.3.41 R-41. Majority Decision. Not revised.

105.18.3.42 R-42. Time of Award. Not revised.

105.18.3.43 R-43. Form of Award – Paragraph (b) shall be replaced with the following:

(a) Not revised.

(b) The arbitrator shall provide a concise, written breakdown of the basis of the award and a written explanation and justification for the awarded amount.

105.18.3.44 R-44. Scope of Award. Not revised.

105.18.3.45 R-45. Award upon Settlement. Not revised.

R105.18.3.46 R-46. Delivery of Award to Parties. Not revised.

105.18.3.47 R-47. Modification of Award. Not revised.

105.18.3.48 R-48. Release of Documents for Judicial Proceedings. Not revised.

105.18.3.49 R-49. Applications to Court and Exclusion of Liability – Paragraph (c) shall be replaced with the following:

(a) Not revised.

(b) Not revised.

(c) Parties to these rules shall be deemed to have consented that judgment upon the arbitration award shall be entered as provided by 226.096, RSMo (L. 2003, HB 668).

(d) Not revised.

105.18.3.50 R-50. Administrative Fees. Not revised.

105.18.3.51 R-51. Expenses. Not revised.

105.18.3.52 R-52. Neutral Arbitrator's Compensation. Not revised.

105.18.3.53 R-53. Deposits. Not revised.

105.18.3.54 R-54. Interpretation and Application of Rules. Not revised.

105.18.3.55 R-55. Suspension for Nonpayment. Not revised.

105.18.4 Fast Track Procedures. The AAA Construction Industry Arbitration Rules, Fast Track Procedures, July 1, 2003 are amended as follows:

105.18.4.1 F-1. Limitation on Extensions. Not revised.

105.18.4.2 F-2. Changes of Claim or Counterclaim - Shall be replaced with the following: The contract between the parties provides for a Notice of Controversy or a Claim for adjustment to the contract prior to any demand for arbitration. Arbitration demands, issues, nature or amount of relief sought, shall not differ or be additional to that in the Notice of Controversy or Claim for contract adjustment provided for in the contract. There may not be a revision of the issues, nature of relief sought or increase in relief during or by way of any presentation of evidence during the arbitration. No award may be upon different issues or basis of relief or provide relief different in nature or greater in amount than contained in the Notice of Controversy or Claim given under the contract and stated in the demand for arbitration. No new or different controversy, claim or counterclaim may be submitted to the arbitrator except with the consent of both parties and the arbitrator and any consent must be clearly expressed, written and signed by the parties. There will be no amendments by implication.

105.18.4.3 F-3. Serving of Notice – Shall be replaced with the following:

(a) Any papers, notices, or process necessary or proper for the initiation or continuation of an arbitration under these rules; for any court action in connection therewith, or for the entry of judgment on any award made under these rules, may be served on a party by mail addressed to the party or its representative at the last known address with return receipt or by personal service, in or outside the state where the arbitration is to be held, provided that reasonable opportunity to be heard with regard thereto has been granted to the party.

(b) The AAA, the arbitrator and the parties may also use overnight delivery with return receipt or electronic facsimile transmission (fax) to give the notices required by these rules. Facsimile transmission must require an acknowledgment that an entire legible transmission was received. Where all parties and the arbitrator agree, notices may be transmitted by electronic mail (email), or other methods of communication.

105.18.4..4 F-4. Appointment and Qualification of Arbitrator - Shall be replaced with the following:

The provisions of 7 CSR 10-26 and the procedures for regular track arbitrator selection, apply to fast track procedure arbitrations.

105.18.4.5 F-5. Preliminary Telephone Conference. Not revised.

105.18.4.6 F-6. Exchange of Exhibits. Not revised.

105.18.4.7 F-7. Discovery. Not revised.

105.18.4.8 F-8. Proceedings on Documents. Not revised.

105.18.4.9 F-9. Date, Time, and Place of Hearing. Not revised.

105.18.4.10 F-10. The Hearing. Not revised.

105.18.4.11 F-11. Time of Award. Not revised.

105.18.4.12 F-12. Time Standards. Not revised.

105.18.4.13 F-13. Arbitrator's Compensation. Not revised.

105.18.5 Form of Award – Shall be added as follows:

The arbitrator shall provide a concise, written breakdown of the basis of the award and a written explanation and justification for the awarded amount.

SECTION 106

CONTROL OF MATERIAL

106.1 Source of Supply and Quality Requirements.

106.1.1 All material needed in the work shall be furnished by the contractor, unless otherwise stated in the contract. The contractor shall assume full responsibility for ordering material of the required quality and quantity. The contractor shall be responsible for the delivered costs of all material ordered.

106.1.2 The material used in the work shall meet all quality requirements of the contract, and shall be obtained from supply sources that meet the approval of the engineer. If a uniform product is not being furnished from a supply source or if for any reason, the product from any source at any time proves to be unsatisfactory, the contractor may be required to furnish approved material from other sources. The engineer may reject the entire output of any source where it is impractical to secure a continuous flow of uniformly satisfactory material.

106.1.3 Any work incorporating material having no prior approval from the engineer shall be performed at the contractor's risk and may be considered unacceptable and unauthorized and, if so considered, will not be paid for. If a change in source will affect the control or appearance of the work, the use of any one kind or class of material for a specific project from more than one source will be prohibited, except as approved by the engineer. If approved, the engineer will set forth the conditions under which the change may be made.

106.1.4 Material will be subject to inspection or test at any time during production or manufacture or at any subsequent time prior to or after incorporation into the work. The points of inspection will be determined by the engineer. Material for sampling will be selected by the engineer. Material provided by the source solely as a sample of that material for testing verification will not be permitted. Initial inspection, testing and approval or rejection will be made as early as practical. The engineer may waive any of the requirements regarding determination of quality and accept material on certification or visual inspection if, in the judgment of the engineer, the quantity involved is too small or the material use is not sufficiently important to warrant tests.

106.1.5 To expedite the inspection and testing of material, the contractor shall submit a list of proposed sources of material to the engineer at the pre-construction conference or two weeks prior to beginning work, whichever is earlier. The list shall be in a format acceptable to the engineer. At the option of the engineer, material may be approved at the source of supply before delivery is started.

106.2 Local Material Sources.

106.2.1 Designated Sources. The Commission may acquire the right and make available to the contractor the right to take material from sources designated on the plans or described in the contract including the right to use designated property if so specified, for plant site, stockpiles and haul roads. In general, the quality of material contained in such sources will be considered acceptable, but the contractor shall determine the method of operation, equipment and work required to produce a material meeting the specifications from the source. Designation of a source for material will not be a representation of the quantity of acceptable

material obtainable or the method, equipment or work required to obtain material from the source. It is not feasible to ascertain from samples the limits for an entire deposit, and variations will be considered as usual and are to be expected. The engineer may order procurement of material from any portion of a deposit and may reject portions of the deposit as unacceptable.

106.2.2 Contractor Furnished Sources. If sources of material are not designated on the plans or described in the contract, or if the contractor desires to use material from sources other than those designated, the contractor shall acquire the necessary rights to take material from the sources and shall pay all costs related thereto, including any that may result from an increase in length of haul. All costs of exploring, meeting environmental requirements and developing such other sources shall be at the contractor's expense. Environmental compliance documentation shall follow MoDOT guidance for contractor furnished borrow and shall be submitted to Design for review and approval. The use of material from other than designated sources will not be permitted until representative samples taken by the contractor in the presence of the engineer have been approved and written authority is issued for the use thereof. If sources of material or material deposits are provided by the contractor, the engineer will test the samples and determine the suitability of the material.

106.2.3 Operation of Sources. Whether sources of material are acquired and made available by the Commission or are furnished by the contractor, activities shall be in compliance with all federal and state laws and the areas shall be excavated or worked in such a manner to comply with the current MoDOT Pollution Prevention Plan and minimize siltation of streams, lakes, ponds and reservoirs.

106.2.4 Final Condition of Sources. Unless otherwise permitted, pits and quarries shall be excavated such that water will not collect and stand therein. Sites from which material has been removed shall be left in such a condition to avoid or minimize siltation of streams, lakes, ponds and reservoirs, and shall be left in a neat and presentable condition upon completion of the work.

106.3 Samples, Tests and Cited Specifications. Samples for tests will be taken and shipped to the laboratory in accordance with MoDOT's *Materials Manual*. There shall be no direct charge to the Commission for material taken as samples, either for field tests or for laboratory tests. If a specification of a recognized national standard agency (AASHTO, ASTM, AWS, AWWA, etc.) is designated, the material shall meet either the designated specification if a date is indicated or the latest revision thereof in effect at the time of bid opening. Tests of samples of material will be conducted by the engineer in accordance with the methods specified in the contract or in accordance with the latest methods in effect at the time of bid opening, as prescribed by the national standard agency. Such national standard specifications and methods of tests will include those designated as tentative, interim or amended and officially approved and published by the sponsoring agency. If appropriate methods have not been so prescribed, tests shall be performed in a manner determined by the engineer.

106.4 Plant Inspection. The engineer may inspect material at the source. If plant inspection is undertaken the following conditions shall be met.

106.4.1 The engineer shall have the cooperation and assistance of the contractor and the producer of the material.

106.4.2 The engineer shall be permitted unlimited access to all parts of the plant as required for adequate inspection of the plant equipment and for selection of samples. Facilities shall be furnished for the procurement of samples, performance of the tests and for the protection of testing equipment and supplies when tests are conducted at the source of production.

106.4.3 If bituminous shipments are considered by the engineer to justify testing at the source, laboratory facilities and testing equipment meeting requirements of the prescribed methods shall be provided by the supplier. The space and equipment shall be adequate for the orderly and proper testing of material without interference to or by the refinery personnel.

106.4.4 When requested, a Type 1 field laboratory shall be furnished at the aggregate source in accordance with Sec 601.

106.4.5 The Commission will refuse to provide plant inspection at sources where adequate safety measures are not provided and maintained.

106.4.6 The Commission reserves the right to inspect plant equipment and to retest all material prior to or after incorporation into the work and to reject all material which, when retested, do not meet the requirements of the specifications.

106.5 Storage of Material. The contractor shall be responsible for proper storage and handling of all material to ensure preservation of required quality and shall be arranged such as to facilitate inspection.

106.6 Handling Material. All material shall be handled in such a manner as to preserve the material's quality and fitness for the work. Aggregate shall be transported from the storage site to the work in tight vehicles constructed to prevent loss or segregation of material after loading and measuring.

106.7 Unacceptable Material. All material not in accordance with the specifications, when initially inspected and tested, will be considered defective, and all such material, whether in place or not, will be rejected and unless remedied, shall be removed from the site of the work. Any approved material that, in the judgment of the engineer, is no longer specification compliant will be rejected. Defective material, including any material furnished by the Commission that has been damaged by the contractor after delivery, shall be replaced or reconditioned by the contractor at the contractor's expense. Rejected material that has been reconditioned or corrected such that the material satisfactorily meets the specifications shall not be used without the engineer's written approval.

106.8 Material Furnished by the Commission. If any material is to be furnished by the Commission, special provisions designating such material will be included in the contract documents. The cost of handling and placing such material after delivery to the contractor will be considered as part of the contract price for that material or work. The contractor shall be responsible for all material upon receipt, and deductions will be made from any monies due to the contractor to make good any shortages and deficiencies, from any cause whatsoever, for any damage that may occur after such delivery and for any demurrage charges.

106.9 Buy America Requirement. On all federal-aid projects, the contractor's attention is directed to Title 23, CFR, titled *Buy America Requirements*. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured in the USA except for "minor usage" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. The use of pig iron and processed, pelletized and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

106.9.1 Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.

106.9.2 "Minor usage" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent of the total contract cost or $2500.00, whichever is greater. If foreign steel, iron or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.

106.9.3 For each domestic permanent steel or iron item, the contractor shall furnish to the engineer for approval, a manufacturer's certification identifying the item and certifying that the manufacturing processes for the product occurred in the USA, including the coating process if applicable. For foreign items, a statement of the specific foreign manufacturing location(s) shall be provided.

106.9.4 Upon completion of the project, the contractor shall certify to the engineer that all steel, iron and coating processes for steel or iron incorporated into the contract work were in accordance with this specification, except as noted. All exceptions and associated costs shall be listed in the same document.

106.9.5 When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron products are awarded the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

106.10 Missouri Domestic Products Requirement. For state funded projects, as noted on the cover of the contract, material shall be in accordance with Sec 102.18.5.

106.11 Metric Implementation.

106.11.1 Equipment. Equipment such as scales, concrete and asphalt plants, and placement equipment shall be scaled in or measured in English units, except equipment for metric projects may be in metric units. Equipment requiring calibration will be calibrated using the equipment's "as manufactured" units.

106.11.2 Material. All material shall be furnished quantified in the specified units of measure for dimensions and other physical aspects except as follows. English material may be provided in lieu of metric specified material and metric reinforcing steel may be provided in lieu of English specified reinforcing steel if the material is equivalent or better and used consistently, if other components or aspects are unaffected, and if the material is approved by the engineer. Any cost of re-design due to use of material with units of measure other than as specified by the contract shall be at the contractor's expense.

106.11.3 Project Documentation. All project tickets, paperwork for measurement, certifications or reporting of material shall be in the unit measure specified in the contract, except if metric is specified, documentation may be furnished in English units, provided documentation is done consistently for the project and supplier.

106.12 Pre-Acceptance List of Material and Sources.

106.12.1 Pre-Acceptance List Description. A PAL will indicate material products or sources that have complied with all pre-approval requirements for a specific material and indicates a source has committed to continued compliance with applicable contract requirements.

106.12.1.1 Pre-Acceptance List Material. For material acceptance based on PAL approval, Sec 106.12 will govern over all other applicable specifications. All material shall be in full compliance with Sec 106 and all other applicable contract documents, and shall be certified as such by the source of the material. Random sampling of the material will be conducted by the engineer to verify that the material is in compliance with the applicable specifications. Material on a PAL may be used on a project by the contractor prior to the engineer receiving random sample test results.

106.12.1.2 Unavailable PAL Material. If there are no PAL materials or suppliers for a specific PAL listing, or during the transition of a material to the PAL, the material may be accepted following sampling, testing and documentation review of each shipment in accordance with the specifications for that material.

106.12.2 Definition of Terms. The following definitions will apply only to Sec 106.12 and subsections:

(a) **Source.** The manufacturer, supplier, fabricator, source or any other entity that is listed on a PAL as the provider of that specific material or product.

(b) **Intermediate Agent.** A supplier of a PAL material, but who is not listed as the source of that specific material or product on the PAL.

106.12.3 Application for Placement on the PAL. A source may propose a material for PAL inclusion by submitting the information required in these specifications and other applicable contract documents, along with any required samples to Construction and Materials. Consideration of a material for PAL inclusion will be based on compliance with this specification or other applicable contract documents, the material's history and any other applicable criteria. Submittal of a request for PAL inclusion will not guarantee approval. The application shall include the following in a written document with attachments as needed:

(a) A completed, original Product Listing/New Product Evaluation Request Form (M-PAL Form).

(b) A completed, original PAL Program Inclusion Certification and Guarantee Statement Form (M-STMNT Form).

(c) A complete description of the material and how the material may be identified.

A list of all MoDOT specifications applicable to the material.

(e) All documentation required by applicable MoDOT specifications or any other contract document.

106.12.4 Material Term on a PAL. Upon approval, the material will remain on a PAL for three years, provided the material's name, formulation and properties have not changed, the specification requirements have not changed, or the material or source has not been removed from the PAL for non-compliance reasons.

106.12.4.1 Material Reapplication on a PAL. During the last 12 months of a material's term on a PAL, the source shall reapply for placement on the PAL in accordance with Sec 106.12.3. No term expiration notification will be sent to the source, and the source shall be responsible for initiating reapplication.

106.12.4.2 Material Updates. Any name, source, or physical or chemical property changes to the material shall be submitted in writing and approved by Construction and Materials prior

to use of the revised material. All physical or chemical changes to a material required to meet new or updated specifications shall be accompanied by identifiable name or identification changes, including revisions of any pertinent product information and certifications affected by the change. This information shall be provided in addition to the documentation required under Sec 106.12.3. When an update is properly submitted and approved, the update will be considered the same as a PAL reapplication, and the expiration date will be extended for three years from the date the changes were approved.

106.12.5 Material Removal from a PAL. Any material proposed for use after removal from a PAL, including use on existing contracts, will not be accepted by PAL methods. Unless stated otherwise, material removed from a PAL for reasons other than failure to re-apply will not be considered for reinstatement until one year after the date of removal. A material may be removed from a PAL for any of the following reasons.

106.12.5.1 Material and sources may be removed immediately from a PAL based on the discretion of Construction and Materials, for reasons including, but not limited to, failure of material to meet specifications, falsification of documentation, not providing required documentation or notification, lack of response to engineers' inquiries by the material's approved source, unsatisfactory performance in the field or other reasons indicating lack of consistent material quality or suitability.

106.12.5.2 Material that fails more than one random sample test in any 12-month period, for whatever reason, including improper manufacture, improper sampling, or improper supplier or contractor handling, will be subject to removal immediately from the PAL without recourse.

106.12.5.3 If a reapplication in accordance with Sec 106.12.4.1, as determined by postmark, is not received prior to the material's termination date, the material will automatically be removed from the PAL at the end of the material's term. For reinstatement of these materials to a PAL, the source shall submit an application in accordance with Sec 106.12.3.

106.12.5.4 Material that has not been documented as being used on MoDOT projects in any three consecutive years will be removed from a PAL. Once removed, a material will not be reinstated until substantial evidence of recent satisfactory use is provided and specific intended use on MoDOT work is established. No other time suspension will apply for considering reinstatement of these requests.

106.12.5.5 Any material or source removed from a PAL twice for any reason in any two-year period will be subject to permanent removal, with a minimum suspension of three years.

106.12.5.6 If a source has more than two materials removed from a PAL in any three-year period, all material from that source may be subject to removal from all PALs.

106.12.6 Reinstatement of a Material on a PAL. Consideration for reinstatement of a material once removed from a PAL will be no sooner than specified under Sec 106.12.5, will require a written document from the source stating the reasons for removal of the material from a PAL, the action taken to correct those deficiencies, written concurrence from Construction and Materials that the cause has been suitably addressed, followed by an application in accordance with Sec 106.12.3 for PAL approval.

106.12.7 Source Certification and Guarantee. Material to be accepted by the engineer under PAL approval shall include a source's certification, which may include certified test results, and a guarantee in accordance with the applicable material specification in the contract documents. The written documentation shall also certify that the material provided is similar in all aspects to the material originally approved and placed on the PAL, and shall indicate the specific date of approval. An intermediate agent shall furnish a manufacturer and supplier's

certification identifying the material, and stating that the material meets all contract document requirements for the specified intended use. Required documentation shall be retained by the manufacturer and each intermediate agent for a period of two years from the date of shipment of the material. The documentation shall be traceable to the destination or destination project and shall be immediately available to the engineer when requested.

106.12.8 Notification of PAL Material Delivery. Prior to delivery to the job site, the source, intermediate agent, shipper or contractor's representative shall notify Construction and Materials by mail, fax or electronically of the impending shipment of PAL material. The source shall ensure that any intermediate agent of the source's approved PAL material carries out the required notification. This notification shall include, at minimum, the following:

(a) The specific contract number.

(b) Line number for which the material will be used.

(c) Type and quantity of material.

(d) Date of expected delivery to the job site.

(e) Brand and manufacturer name of the material.

106.12.8.1 All of the above information shall have been received by Construction and Materials five working days prior to delivery of the material to the job site. Additional material may be considered part of the original shipment when the ordered quantity was underestimated or material was lost or damaged. Construction and Materials shall be notified prior to the shipment of additional material. No material shall be used on a project until Construction and Materials approves such use.

106.12.8.2 Upon approval, the entity providing the notification of material delivery will be informed that the material was approved and an identification number for that specific material will be provided. This identification number shall be written on an orange tag or approved alternate label and shall be attached to the material prior to presentation for use at the job site. Requests for alternate PAL labeling shall be submitted to Construction and Materials for approval. Material without the identification number attached will not be permitted for use on a project.

106.12.9 Sampling of Material. The source for a material shall ensure all users are adequately informed and monitored to ensure proper material sampling and usage. The source shall provide instructions for proper sampling of the material, and sampling shall be performed under the observation of the engineer. The source shall be solely responsible for proper sampling, unless stated otherwise by Construction and Materials.

106.12.9.1 Additional material may be requested by the engineer at the time of shipment to allow random sampling of the material at the project site without creating a material shortage.

106.12.9.2 Sample size and sampling frequency will be at the discretion of the engineer.

106.12.10 Intermediate Agent Responsibilities.

106.12.10.1 Any intermediate agent supplying PAL material to a supplier or contractor shall be responsible for proper handling, storage, sampling (if required to be performed by the agent) and delivery in accordance with applicable specifications and the source's recommendations, including notification of PAL material in accordance with Sec 106.12.8. If the intermediate agent is negligent in performing any of these specified tasks, the intermediate

agent may be immediately denied as an intermediate agent for the PAL material without recourse and may be held responsible for material failure in accordance with Sec 106.12.13. If an intermediate agent is disapproved by Construction and Materials, that agent will not be reconsidered as an intermediate agent of any PAL material until one year after the date of removal as an intermediate agent of PAL material. Reinstatement will require a written document from the intermediate agent stating the reasons for removal as an intermediate agent for PAL material, the action taken to correct those deficiencies, and written concurrence from Construction and Materials that the problem has been suitably addressed and that the agent is approved as an intermediate agent of PAL material.

106.12.10.2 An intermediate agent will be allowed to request PAL inclusion for a product manufactured by a separate company that does not have substantial business interest in applying for PAL or for a product that is only used in small quantities. If PAL inclusion is granted, the intermediate agent shall be responsible for any material provided that does not meet the applicable specifications. The intermediate agent shall assume all penalties for non-compliant material, including removal from a PAL in accordance with Sec 106.12.5.

106.12.11 Contractor PAL Use. The source for PAL material shall be listed on the PAL at the time the material is incorporated into the project. The contractor bears the risk that material on the PAL at the time of bidding is no longer on the PAL at the time of incorporation. The contractor may obtain a list of PAL material by contacting Construction and Materials or from MoDOT's website. Use of PAL material shall not relieve the contractor or supplier of any responsibility to provide an inspected and approved material meeting all requirements of the contract documents.

106.12.12 Testing of Material. Test results from any sample will be considered representative of the material, and a final determination of specification compliance will be made on the basis of that sample.

106.12.13 Responsibility for Material Failure. When material has been incorporated into the project and fails any specified tests, Sec 106.7 will apply. The use of this material on all other projects shall be suspended until notified otherwise by Construction and Materials.

106.13 Quality Control/Quality Assurance. For material or work governed by QC/QA specifications, quality control performed by the contractor will determine acceptance of the material when test results are confirmed by the engineer's sampling, testing and assessment. When the engineer's sampling, testing or assessment do not support the contractor's results, work shall be suspended and any material in place will be subject to rejection following a review by the engineer. Final acceptance of the material, work or process will be based on the engineer's sampling, testing and assessment.

106.14 Proprietary Items. In the event a proprietary item included in a contract becomes unavailable during the term of the contract, the contractor shall promptly provide documentation to the engineer substantiating that the proprietary item is unavailable. Price or credit terms demanded of the contractor by the supplier will not constitute sufficient reason to substitute for the specified proprietary item. As part of the documentation, the contractor shall propose an alternative source or item that meets the performance requirements of the original proprietary item included in the contract. Any adjustment in the contract unit price shall be made in accordance with Sec 109.4. If an acceptable alternative item cannot be located, the proprietary item and any associated work may be underrun from the contract.

SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

107.1 Laws to be Observed. The contractor shall know, observe and comply with all federal and state laws, local laws, codes, ordinances, orders, decrees and regulations existing at the time of or enacted subsequent to the execution of the contract that in any manner affect the prosecution of the work, except as specified in the contract or as directed by the engineer. The Contractor shall also ensure that any subcontractor of the contractor know, observe and comply with all federal and state laws, local laws, codes, ordinances, orders, decrees and regulations as outlined above. The contractor and surety shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from any claim or liability arising from or based on the violation of any such law, code, ordinance, regulation, order or decree, except any local regulations, decrees, orders, codes or ordinances that the contract or the engineer has specifically directed that the contractor need not obey.

107.1.1 Contract and Legal Inconsistency. The engineer shall be notified immediately in writing if any discrepancy or inconsistency is discovered between the contract and any law, ordinance, regulation, order or decree.

107.1.2 Local Building and Zoning Codes or Ordinances. The projects of the Commission are not typically subject to local building or zoning codes or ordinances. Therefore, the contractor usually need not obtain a local building or zoning permit or variance for work done exclusively as the Commission's contractor on the Commission's project and the Commission's right of way. Other local codes or ordinances may not apply to the Commission, and thus to the contractor as well. If any questions arise concerning whether the contractor shall comply with a local code, ordinance, decree or order of any type, the contractor shall advise the engineer of the problem immediately, for resolution by the engineer. This provision will not exempt the contractor from the requirement of thoroughly researching and determining, before submitting a bid on the contract and from complying with, all federal, state or local laws, regulations, codes, ordinances, decrees or orders that may apply to the contract work. The Commission will not be responsible for the contractor's failure to be informed before bidding as to the federal, state and local laws, regulations, codes, ordinances, decrees or orders that may govern the contract work, or for the contractor's failure to determine before bidding which of these do not govern the contract work.

107.1.3 Authentication of Certain Documents. If plans, plats, detailed drawings or specifications for falsework, cofferdams or any other work are required to be submitted to the engineer, the documents shall be signed, sealed and stamped in accordance with the laws relating to the practice of architecture and professional engineering in the State of Missouri (Chapter 327, RSMo).

107.2 Permits, Licenses and Taxes.. Except as otherwise provided in the contract, the contractor shall procure all permits and licenses, shall pay all charges, fees and taxes, and shall give all notices necessary and incidental to the due and lawful prosecution of the work. No direct payment will be made for the cost of complying with this requirement.

107.3 Patented or Copyrighted Devices, Material and Processes. If the contractor is required or desires to use any design, device, material or process covered by letters, patent,

copyright, service or trademark, the contractor shall arrange and provide for such use by suitable agreement with the patentee or owner, and a copy of the agreement may be required by the Commission. The contractor and surety shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from any suits, claims or damages arising from the infringement upon or use of any patented, copyrighted or registered design, device, material, process or mark.

107.4 Safety and Sanitary Provisions. The contractor shall at all times take necessary precautions to protect the life and health of all persons employed on the project. The contractor shall be familiar with the latest accepted accident prevention methods and shall provide necessary safety devices and safeguards accordingly. The Commission will refuse to provide inspection services at plants or work sites where adequate safety measures are not provided and maintained.

107.4.1 The contractor shall provide and maintain in a neat and sanitary condition, such accommodations for the use of employees as may be necessary to comply with the requirements and regulations of any agency having jurisdiction over public health and sanitation. The contractor shall permit no public or private nuisance.

107.4.2 All sanitary facilities and safety devices shall be furnished free to employees and no direct payment will be made for such facilities or devices.

107.5 Public Convenience and Safety. The contractor shall conduct the work in a manner that will ensure, as far as practical, the least obstruction to traffic and shall provide for the convenience and safety of the general public and residents along and adjacent to the highway in an adequate and satisfactory manner.

107.5.1 Obstructions Prohibited. Fire hydrants on and adjacent to the highway shall be kept accessible to fire fighting apparatus at all times, and no obstruction shall be placed within 15 feet (5 m) of any such hydrant. Footways, gutters, sewers, outlets, inlets and portions of highways adjoining the work under construction shall not be obstructed. Pavements over which hauling is performed shall be kept clean of spilled or tracked-on material at all times when in use by traffic.

107.5.2 Objects Potentially Affecting Navigable Airspace. The contractor shall comply with all federal regulations pertaining to constructing, erecting or installing any object, temporary or permanent, which could potentially affect navigable airspace.

107.5.3 Material and Equipment. During construction hours, equipment, material and vehicles utilized in construction of the project will only be permitted on shoulders, medians or pavements where the locations are closed to traffic, properly signed and occupied by ongoing construction operations, unless otherwise approved by the engineer. Except in cases of emergency, construction equipment, material and vehicles will not be permitted on pavements or shoulders being utilized by traffic. If the contract specifies time periods the contractor will not be permitted to perform work, construction equipment or vehicles shall not enter or leave the construction area via the pavements handling traffic nor be operated on the pavements handling traffic within the construction area during the restricted time periods. During non-construction hours, construction equipment, material and vehicles will not be permitted within 30 feet (10 m) of the edge of the pavement or shoulders carrying traffic unless the equipment, material and vehicles are located in a properly protected area, an off-site storage area or as otherwise directed by the engineer.

107.6 Bridges over Navigable Waters. All work on navigable waters shall be conducted such that free navigation of the waterways will not be interfered with and that existing

navigable depths will not be impaired except as allowed by permit issued by the USCG or the USACE.

107.7 Use of Explosives. All blasting operations shall be conducted under the direct supervision of a certified, approved blaster as set forth in the contract. When explosives are used in the prosecution of the work, the contractor shall use the utmost care to prevent bodily injury and property damage. The contractor shall be responsible for damage resulting from the use of explosives. The engineer will have the authority to suspend any unsafe blasting operation. The contractor shall be familiar and comply with the rules and regulations of any city, county, state or federal agency or any other agency that may have jurisdiction in the handling, loading, transporting, storage and use of explosives. All places used for explosives storage shall be marked clearly "DANGEROUS EXPLOSIVES".

107.7.1 Before beginning work, the contractor shall furnish the engineer letters of approval for the proposed operation from the appropriate regulating agencies. The contractor shall notify in writing the appropriate fire protection jurisdiction of the intent to store, transport or use explosives and shall provide proof of notice to the engineer. The contractor shall provide the engineer with copies of all permits, blasting logs and seismic monitoring data.

107.7.2 The contractor shall notify in advance each property owner, tenant and public utility company having structures or facilities close to the work of any intention to use explosives.

107.7.3 Removal of any item or material of any nature by blasting shall be done in such a manner and at such time as to avoid damage affecting the integrity of the design and to avoid damage to any new or existing structure, whether on Commission right of way or private property, included in or adjacent to the work. Unless the contract documents or the engineer restricts such operation, the contractor shall be responsible for determining a method of operation to ensure the desired results and the integrity of the completed work.

107.7.4 The contractor and surety shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from any claim related to the possession, transportation, storage or use of explosives.

107.7.5 Requirements for Blasters. This specification outlines the training, experience and certification requirements to qualify a blaster to supervise blasting operations on Commission projects.

107.7.5.1 Training Requirements. The individual shall have attended at least 20 hours of instruction within any 24-month period covering the following topics:

(a) Selection of the type of explosives to be used.

(b) Blast designs, to include geologic and topographic considerations, design of a blast hole, and the pattern design, field layout and timing of blast holes.

(c) Loading blast holes.

(d) Initiation systems and blasting machines.

(e) Blasting vibrations, airblast and flyrock.

(f) Secondary blasting applications.

(g) Federal and state laws and regulations.

(h) Blast records.

(i) Schedules.

(j) Preblast surveys.

(k) Blast-plan requirements.

(l) Signs, warning signals and site control.

(m) Unpredictable hazards, to include lightning, stray currents, radio waves and misfires.

107.7.5.1.1 Training shall be received from any competent source, including, but not limited to, universities, manufacturers or distributors of explosive products, government agencies or professional consultants.

107.7.5.1.2 Training material may be obtained for a nominal fee through the University of Missouri-Rolla, Rock Mechanics and Explosive Research Center.

107.7.5.1.3 The provider of the training shall issue a certificate of training to each individual successfully passing the training course. The certificate shall indicate dates of training, the number of hours of training and topics covered.

107.7.5.2 Testing Requirements. To qualify as a blaster, the individual shall successfully pass a written exam developed and administered by the University of Missouri-Rolla, Rock Mechanics and Explosive Research Center.

107.7.5.2.1 To qualify to take the exam, the individual shall provide to the University of Missouri-Rolla a copy of the training certificate specified in Sec 107.7.5.1.3, showing that the individual has taken a minimum of 20 hours of training.

107.7.5.2.2 Upon successfully passing the exam, the individual will receive a certificate from the university. It shall be the responsibility of the individual receiving the certificate to provide a copy of the certificate upon the request of the engineer.

107.7.5.3 Certification Requirements. The individual shall receive pre-approval from Construction and Materials prior to supervising any blasting operations on Commission projects.

107.7.5.3.1 To apply for pre-approval, the following documentation shall be submitted to the Missouri Department of Transportation, General Headquarters Construction and Materials, P.O. Box 270, Jefferson City, MO 65102:

(a) A copy of any training certificates showing the individual has attended a minimum of 20 hours of instruction within any 24-month period as specified in Sec 107.7.5.1.

(b) A copy of the certificate from the University of Missouri-Rolla indicating that the individual has successfully passed the UMR tests on explosives.

(c) Written confirmation from a current employer, former employer, or other qualified source that the individual has two years or 2000 hours of experience using explosives as a regular part of employment.

107.7.5.3.1.1 All documents shall show the individual's full name and social security number.

107.7.5.3.1.2 The individual's address shall be provided. Providing address updates shall be the blaster's responsibility.

107.7.5.3.2 Documentation, as required under Sec 107.7.5.3.1, Sections (a) and (b), may be waived if the individual holds a valid blaster's certificate or license issued by the Missouri Limestone Producers Association, or the controlling authority of any city, county or state whose training, testing and experience requirements meet or exceed the requirements set forth in this specification.

107.7.5.3.3 If approved, the individual will receive a blaster's certificate, and the blaster's name will be placed on a pre-approved list maintained by the department. The blaster's certificate will be valid for three years from the date of expiration of the previous certificate.

107.7.5.4 Re-certification of Blasters.

107.7.5.4.1 Continuing education/training for re-certification shall cover any blasting-related topic. Priority shall be given to topics on new products, changes in laws and regulations, and current safety concerns within the industry. Appropriate presentations at professional meetings, conferences, safety courses and seminars may be used to fulfill this requirement.

107.7.5.4.2 A minimum of eight hours of continuing education/training will be required for re-certification. If certification lapses for a period of more than one year, the blaster will be required to apply for new certification in accordance with Sec 107.7.5.

107.7.5.4.3 It shall be the certificate holder's responsibility to attend training, provide adequate documentation of such training, and apply for re-certification.

107.8 Preservation of Monuments and Artifacts.

107.8.1 Monuments. The contractor shall not disturb or damage any land monument or property landmark unless authorized by the engineer.

107.8.2 Human and Archaeological Remains. The contractor shall report to the engineer the discovery of human remains, artifacts, fossils and other items of historical, archaeological or geological significance discovered within the right of way during construction. Such items will remain in the Commission's custody and shall not be removed from the site unless directed by the engineer. The preservation and handling of such items shall be in accordance with Sec 203.4.8.

107.9 Forest and Park Protection. Environmental and sanitary laws and regulations regarding the performance of work within or adjacent to state or national forests or parks shall be obeyed. The contractor shall keep the project site in an orderly condition, dispose of all refuse, obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks and other structures in accordance with the regulations and instructions issued by the forest or park supervisor. The contractor shall require employees and subcontractors, independently, and at the request of forest officials, to prevent and suppress forest fires, and to notify a forest official of the location and extent of any fire.

107.10 Environmental Protection. The contractor shall comply with all federal, state and local laws and regulations controlling pollution of the environment. Pollution of streams, lakes, ponds and reservoirs with fuels, oils, bitumens, chemicals or other harmful material and pollution of the atmosphere from particulate and gaseous matter shall be avoided.

107.10.1 Fording of streams and fill for temporary work not specified on design plans will not be permitted unless the plan for such operation is authorized by the Corps of Engineers, meets the approval of the engineer, complies with the current MoDOT Pollution Plan and results in minimum siltation to the stream. Temporary stream crossings shall not be constructed unless specifically designated as a condition of the Corps of Engineers Section 404 permit or a permit is obtained, and the temporary stream crossing is in accordance with Sec 806.

107.10.2 When work areas or pits are located in or adjacent to streams, the areas shall be separated from the main stream by a dike or barrier to keep sediment from entering the stream. Care shall be taken during the construction and removal of such barriers to minimize siltation of the stream.

107.10.3 Disposal of Portland cement concrete residue and wash water, water from aggregate washing or other operations resulting in sediment shall be treated by filtration, settling basins or other means sufficient to reduce the sediment concentration to applicable limits established by MDNR.

107.11 Responsibility for Claims for Damage or Injury. The contractor and insurance company shall indemnify and save harmless the State, the Commission, the Commission's agents, employees and assigns from all claims or suits made or brought for bodily injury, death or property damage, arising from performance of the work to the extent of:

(a) The negligent acts or omissions of the contractor, subcontractors, suppliers or their respective officers, agents or employees.

(b) The creation or maintenance of a dangerous condition of or on the Commission's property or right of way, which condition occurred due to the acts or omissions of the contractor, subcontractors, suppliers or their respective officers, agents or employees or for which the contractor had knowledge of or could have had knowledge of the condition in time to warn of or repair said condition.

(c) The failure of the contractor, subcontractors, suppliers or their respective officers, agents or employees, to perform the work in accordance with the plans and specifications.

107.11.1 The contractor will not be required to defend, indemnify or hold harmless any other person, including the State, the Commission, or the Commission's agents, employees or assigns for any acts, omissions or negligence of other persons.

107.11.2 Neither the Commission nor the contractor, by execution of a contract, shall intend to or create a new or enlarge an existing cause of action in any third party. This provision shall not be interpreted to create any new liability that does not exist under the statutory limited waiver of sovereign immunity, or to waive or extinguish any defense that either party to this contract or their respective agents and employees may have to an action or suit by a third party.

107.12 Contractor's Responsibility for Work. From the earlier of the date of commencement of the work or the effective date of the notice to proceed, and until any work is accepted by the engineer, the work shall be in the custody and under the charge and care of the contractor. Issuance of a payment estimate on any part of the work done will not be considered as final acceptance of any work completed up to that time.

107.12.1 Damages to any portion of the work before the work is completed and accepted, caused by the action of the elements or from any other reason, shall be repaired or replaced at the contractor's expense. The contractor, at the contractor's option, may insure against any

such damages. The Commission may, in its discretion, make such a payment, determined in accordance with Sec 109.4, for damage to the work due to unforeseeable causes beyond the control of, and without fault or negligence on the part of the contractor, unless the contractor has been reimbursed for such damages by the contractor's insurer. Prior to reimbursement, the contractor shall furnish documentary evidence of all efforts to recover such repair costs.

107.12.2 The contractor shall immediately give written notice to the engineer of any pedestrian or vehicular accident. The contractor may be directed by the engineer to repair permanent Commission facilities that have been damaged by events that are beyond the control of the contractor. Reimbursement will be provided by the Commission, determined in accordance with Sec 109.4, for the actual direct cost of labor, equipment and material, exclusive of overhead, indirect or consequential costs of profit. The Commission may elect to make such repairs in lieu of the contractor.

107.13 Insurance Requirements. The contractor shall procure and maintain at the contractor's expense until acceptance of the project by the engineer, insurance for all damages and losses imposed by law and assumed under the contract, of the kinds and in the amounts specified in Secs 107.13.1 through 107.13.4. Before the contractor begins the work, the contractor shall require the insurance company or companies to furnish to the engineer evidence of such insurance showing compliance with these specifications. All insurance required in Sec 107.13 shall be occurrence policies in a form acceptable to the engineer, and shall remain in force until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by formal acceptance by the engineer. Each policy or policy's declaration pages shall provide that the policy shall not be materially changed or canceled until the engineer has been given at least 30 days advance notice in writing. If any policy is canceled before the contract work is complete, a satisfactory replacement policy shall be in force, with notice and evidence of insurance submitted to the engineer, prior to the effective date of cancellation of the former policy. All evidence of insurance and notices shall be submitted to: Construction and Materials, MoDOT, 105 W. Capitol Avenue, P.O. Box 270, Jefferson City, Missouri 65102-0270. Upon request, the contractor shall promptly furnish the engineer with a complete copy of the policy. Failure to furnish evidence of proper insurance, or complete insurance policies when requested, will result in the temporary suspension of work as provided in Sec 108, and may result in other claims or actions for breach of contract or otherwise, as may be recognized at law or in equity.

107.13.1 Workers' Compensation Insurance. The contractor shall furnish evidence to the engineer that, with respect to the operations the contractor performs, the contractor carries workers' compensation insurance, or is qualified by the Missouri Division of Workers' Compensation as self-insured, and carries insurance for employer's liability sufficient to comply with all obligations under state laws relating to workers' compensation and employer's liability. The contractor shall require each subcontractor on the project to furnish the same evidence to the engineer. This evidence shall be furnished to and approved by the engineer prior to the time the contractor or subcontractor commences work on the site of the project.

107.13.2 Contractor's Liability Insurance with Additional Insured Parties.

107.13.2.1 Commercial General Liability Insurance. The contractor shall obtain one or more occurrence-based policies of commercial general liability insurance (Form CG 00 01 or equivalent) that provide coverage for the contract work. The minimum limits of liability for commercial general liability insurance shall be: $1,000,000 each bodily injury or property damage occurrence, combined single limit, $2,000,000 general aggregate with a per project endorsement and $1,000,000 products/completed operations aggregate. Each such policy shall be endorsed to cover liability arising from blasting if applicable, other inherently dangerous activities, and underground property damage. Each such policy shall be endorsed to include broad form general liability, contractual liability and completed operations coverage.

107.13.2.2 Commercial Auto Liability Insurance. The contractor shall obtain one or more occurrence-based policies of auto liability insurance that provide coverage for the contractor's owned, non-owned and hired vehicles of every type and description that are used in the contract work. The minimum limits of liability for such insurance shall be $1,000,000 combined single limit.

107.13.2.3 Additional Insureds. Each such policy of commercial general liability insurance and commercial auto liability insurance shall name the State of Missouri for the benefit of the State of Missouri's Legal Expense Fund, the Commission and the Commission's members, agents and employees as additional insureds. Each commercial general liability insurance policy and commercial auto liability insurance policy shall also contain a separation of insureds condition. The insurance afforded by the contractor shall be primary insurance.

107.13.2.4 Subcontractor's Coverage. If any part of the contract is subcontracted, each subcontractor, or the contractor on behalf of that subcontractor, shall obtain the same commercial general liability insurance and commercial automobile liability insurance coverage. The commercial general liability insurance shall name the same entities specified in Sec 107.13.2.3 as additional insureds, and shall have the same separation of insureds conditions.

107.13.3 Navigable Waters Insurance Protection.

107.13.3.1 Description. Any contractor performing contract work on or adjacent to the Missouri and Mississippi rivers, and any other waters classified as "navigable waters of the United States" by the USACE, shall obtain insurance coverage in accordance with these specifications. The contractor may also obtain this insurance coverage for any subcontractor who will perform contract work under that contract. Employees of contractors or subcontractors that perform marine construction work on or near a waterway that is a navigable water of the United States may be subject to maritime law liability for injuries to employees working from vessels in waterways or working from nearby facilities in relation to construction on or over such waterways. Contractors and subcontractors for such work on these navigable waters of the United States shall purchase coverages as required in Secs 107.13.3.2.1 and 107.13.3.2.2.

107.13.3.2 Insurance Requirements. Jones Act Insurance, Longshore and Harbor Workers' Compensation Act Insurance, and Maritime Law Liability Insurance will apply as provided in Secs 107.13.3.2.1 and 107.13.3.2.2.

107.13.3.2.1 Jones Act Insurance. Insurance shall be purchased by any contractor or subcontractor performing work on or near the Missouri or Mississippi Rivers, or any other navigable waters of the United States, for exposures under the Jones Act, 46 USC, with a minimum limit of $2,000,000 per occurrence and in the aggregate, or as may be specified by law, whichever amount is higher. The contractor or subcontractor may obtain insurance covering employees under the Jones Act for any other project for which the contractor's insurer deems there is exposure. Insurance under this section covers any employee deemed by the courts as masters or members of crews of vessels who are entitled to seek recovery as "seamen" for injury or death under the Jones Act, or general maritime law. Such coverage may be provided through appropriate endorsements to the contractor's or subcontractor's workers' compensation policy.

107.13.3.2.2 US Longshore and Harbor Workers' Compensation Act Insurance. Insurance shall be purchased by any contractor or subcontractor performing work on or near the Missouri or Mississippi Rivers, or any other navigable waters of the United States, for exposures under the US Longshore and Harbor Workers' Compensation Act, USC, Title 33,

with a minimum limit of $2,000,000 per occurrence, and in the aggregate, or as may be specified by law, whichever amount is higher. The contractor or subcontractor may obtain insurance covering employees under the US Longshore and Harbor Worker's Act as defined in this section for any other project for which the contractor's insurer deems there is exposure. Insurance under this section covers any employees who do not qualify as masters or members of a crew of a vessel, but perform work in loading or unloading vessels or work from docks, barges or other platforms, and who may be deemed by the courts as entitled to seek compensation for injury or death under the US Longshore and Harbor Workers' Compensation Act. Such coverage may be provided through appropriate endorsements to the contractor's or subcontractor's workers' compensation policy.

107.13.4 Railroad Protective Liability Insurance. In addition to other forms of required insurance, the contractor shall carry railroad protective liability insurance when any of the contractor's work is to be performed within any railroad right of way. The policy shall be written using one of the following combinations of Insurance Services Office ("ISO") Form Numbers: CG 00 35 01 96 and CG 28 31 10 93, or CG 00 35 07 98 and CG 28 31 07 98. The name or names of the railroad companies to be insured will be specified in each contract. The minimum limits of the insurance will be established in the contract documents and provided to the contractors prior to the opening of bids. The contractor shall submit the original policy in its entirety and one duplicate to the Commission for review and transmittal to the railroad. No work will be permitted within any railroad's right of way until the railroad involved has reviewed and approved the insurance policy. Any day upon which the contractor cannot perform work due to such a policy not being approved by the railroad will not be counted as a working day under Sec 108.7. Subcontractors for any part of the work that is sublet will not be required to obtain railroad protective liability insurance or provide evidence thereof, if the contractor's insurance for that purpose covers subcontractors.

107.13.5 Insurance with Other Than Missouri Companies. Any insurance policy required as specified above, if written by an insurance company organized in a state other than Missouri, shall be signed by an agent or broker licensed by the State of Missouri. In the case of policies written by companies organized in a state other than Missouri, the evidence of insurance submitted as authorized in the contract shall be signed by an agent or broker licensed by the State of Missouri. Nothing in this provision limits or waives the requirement that each insurance policy shall be issued by a company authorized to issue such insurance in Missouri.

107.13.6 Combinations. Employer's liability insurance, commercial general liability insurance and commercial auto liability insurance and insurance under the Jones Act or Longshore and Harbor Workers Compensation Act or Maritime Law Liability requirements, as required by this section, may be arranged under a single policy for the full limits required or by a combination of underlying policies and an excess liability policy, or "umbrella" coverage, which follows the form of the underlying policy.

107.14 Third Party Liability. Neither the State of Missouri, including the Commission, nor the contractor, by execution of the contract including these specifications, intend to create a right of action in a third party beneficiary, except as specifically set out in these specifications and the contract. It is not intended by any required contractual liability in the contract or in these specifications that any third party beneficiary has a cause of action arising out of the condition of the project when completed in accordance with the plans and accepted by the Commission.

107.15 Personal Liability of Public Officials. There shall be no personal liability upon the Chief Engineer, or any member, employee or agent of the Commission in carrying out any of the provisions of the contract or in exercising any power or authority granted to the individual, it being understood that in such matters the individual acts as an agent and representative of

the State, with official and public duty doctrine immunity. If any provision of the contract appears to impose a duty on such an individual, the duty will remain exclusively that of the Commission and will not be a personal duty or obligation of the individual.

107.16 Contractors That Are Not Resident In Missouri. Any contractor that is not a permanent resident of or domiciled in Missouri shall provide to the Commission proof of compliance with the Missouri "nonresident employers" financial assurance laws at Sections 285.230 to 285.234, RSMo, before the contractor performs any work on a project.

107.16.1 A nonresident contractor that is a "transient employer" as that term is defined in Section 285.230.1, RSMo, and 12 CSR 10-2.017(1)(A), shall file with the Commission a photocopy of the contractor's current transient employer's certificate of registration issued by the Missouri Department of Revenue before performing any work on a project. A nonresident contractor that is not classified by the Missouri Department of Revenue as a "transient employer" because the nonresident contractor has properly registered with the Missouri Department of Revenue and the Missouri Division of Employment Security, and has filed and paid Missouri state income taxes for more than 24 consecutive months, shall file with the Commission a photocopy of the contractor's certificate of registration, issued by the Missouri Department of Revenue, that it is not a "transient employer" before performing any work on a project.

107.16.2 The contractor shall require a nonresident subcontractor to file with the Commission a photocopy of the subcontractor's current transient employer's or alternate certificate of registration, as issued by the Missouri Department of Revenue, before that subcontractor performs any work on a project.

107.16.3 Any nonresident contractor or subcontractor that fails to file the financial assurance forms with the Missouri Department of Revenue as required by Missouri law will be prohibited from contracting for or performing labor on any project for a period of one year.

107.17 Basis of Payment. No direct payment will be made for compliance with Sec 107, except as provided by Sec 618.

SECTION 108

PROSECUTION AND PROGRESS

108.1 Subletting of Contract.

108.1.1 The contractor shall not sublet, sell, transfer, assign or otherwise dispose of the contract or contracts or any portion thereof, or of any right, title, or interest therein, without written consent of the engineer. Requests for permission to sublet, assign or otherwise dispose of any portion of the contract shall be in writing and accompanied by evidence that the organization that will perform the work is particularly experienced and equipped for such work. In case such consent is given, the contractor will be permitted to sublet a portion thereof, but the contractor's organization shall perform work amounting to no less than 40 percent of the total contract cost. Certification or classification of a contractor by type of work performed or consent to a subcontract shall not constitute the Commission's endorsement of the qualifications of the subcontractor or that the particular subcontractor's work will constitute compliance with any other provisions of the contract.

108.1.2 The value of the work sublet will be determined by multiplying the number of units of any contract item sublet by the contract unit price in accordance with the original contract or by a price agreed to by the engineer where no contract unit price is included in the contract for the work sublet. Approval of a subcontract will not constitute approval of the agreed contract unit prices in the subcontract. The subcontractor shall perform the work described in the subcontract agreement. No subcontracts, or transfer of contract, will in any case release the contractor's liability under the contract and bonds. Consent to a subcontract will not create a direct contractual relationship between the subcontractor and the Commission.

108.1.3 The contractor shall furnish to the Commission a complete copy of the signed subcontract, and all revisions upon request.

108.1.4 A contractor, at the discretion of the engineer, may make a substitution for a subcontract that was disclosed with the bid in accordance with 102.7 or may add a subcontract that would have required disclosure in accordance with 102.7. The contractor shall submit the name of the new subcontractor, the category of work, the dollar value of each subcontract and the reason for the substitution or addition in writing to the engineer for consideration.

108.2 Notice to Proceed. The notice to proceed will stipulate the date the contractor is expected to begin work. The Commission will issue the notice to proceed by stipulating the date on the notice of award sent to all successful bidders, or on a separate form for this purpose. Prior to the stipulated date, the contractor shall execute and file the prescribed number of copies of the contract and bond and shall furnish to the Commission satisfactory evidence of having complied with insurance requirements.

108.3 Prosecution of Work. The contractor will be expected to start work on the date stipulated by the notice to proceed. If all contract requirements have been met in accordance with Sec 108.2 the contractor may start work before the date stipulated by the notice to proceed, provided the engineer is notified in writing at least three days prior to the date on which the contractor expects to begin.

108.3.1 The contractor shall continuously and diligently prosecute the work in such order and manner as will ensure the completion of the work within the specified time, and the contractor shall be fully responsible for the prosecution and coordination of all work being performed under the contract.

108.3.2 The work in progress shall receive the personal attention either of the contractor or of a competent and reliable representative of the contractor who shall have full and final authority to act for the contractor. If authority is delegated to a representative of the contractor, the contractor shall notify the engineer in writing, stating the name of the person authorized to act as the contractor's representative, and stating the name or names of persons authorized to sign the various documents such as weekly reports, change orders, force account statements, labor payrolls and any other documents that may be required during the progress of the work. If progress at any time is not adequate to meet the contractor's schedule and the contract completion time, the contractor shall take all steps necessary to complete the work in the time and manner specified in the contract.

108.3.3 Prior to beginning any work on contracts involving a joint venture, the joint venturers shall appoint and maintain a single representative having full and final authority to act for the joint venture. The engineer shall be notified in writing of the name of this representative and of any replacements.

108.4 Progress Schedules. The contractor shall submit a progress schedule to the engineer for review prior to or at the pre-construction conference. The progress schedule shall be used to establish construction operations and to monitor the progress of the work, although the engineer's determination of the then major operation or controlling item of work will always prevail. The progress schedule shall be in the form specified in Sec 108.4.1, unless the contract contains different requirements. The progress schedule shall be based on the number of working days, calendar days or other increments as set forth in the contract that the contractor expects to require in completing the project, recognizing the capabilities of labor, equipment, arrangements for material, mobilization, shop drawing preparation and approvals, and other relevant items. If an electronic computer software program is used to generate the schedule, the initial and any revised schedules shall be accompanied by a disk containing the schedule files in the native format of the software program used to create the schedule. The disk shall be labeled with the contract ID, route, county, date of revision, and the name of the software program used. The contractor will not be required to provide any copies of the software program.

108.4.1 Form and Contents of Progress Schedule. The progress schedule shall contain an activities schedule bar chart and may, at the contractor's option, include a written narrative that breaks down into detail the time in working days, calendar days or completion date involved in performing all construction activities for the duration of the project, and which is in a suitable scale as to indicate the percentage of work scheduled for completion at any time. The schedule shall indicate all interdependencies between activities. The progress schedule shall also clearly outline the intended maintenance of traffic, work phasing provided by the contract and such other information, as required by the contract.

108.4.2 Preparation of Initial Schedule. The contractor shall complete development of a progress schedule and present a copy to the engineer prior to or at the pre-construction conference.

108.4.2.1 The construction time, as indicated by the progress schedule, for the entire project or any milestone, shall not exceed the specified contract time. If any milestone date or contract completion date is exceeded in the schedule, time estimates on the progress schedule shall be revised. The controlling activity shall be clearly shown for each day of the schedule. A controlling activity will be defined as that part of a progress-controlling item or items that

must be performed before the next progress-controlling item of work can be started. Following a review of the progress schedule by the engineer, the engineer and contractor will meet for a joint review, correction and adjustment of the schedule, if necessary.

108.4.2.2 If necessary this process will be repeated. However, the schedule shall be finalized by the contractor within seven days after request for correction and adjustment to the schedule.

108.4.3 Cost and Intent of Progress Schedules The review by the engineer of any progress schedule will not constitute a determination that the schedule is reasonable, that following the schedule will result in timely completion, or that deviation will result in a delayed completion. The progress schedule, and any updates provided, is not a part of the contract. If the schedule reflects a completion date different than that specified in the contract, that does not void the completion date or working days specified in the contract. If any schedule reflects a completion time earlier than that specified in the contract, the contractor specifically understands that no claim for additional contract time or compensation will lie against the Commission if the work is not completed by the earlier time shown on the schedule. It will be the contractor's responsibility to determine the most feasible order of work consistent with the requirements of the contract.

108.4.3.1 No direct payment will be made for furnishing progress schedules or revisions.

108.4.3.2 If the contractor fails to comply with the requirement to supply an initial or any revised progress schedule, the engineer may withhold progress payments until a schedule has been submitted and reviewed.

108.4.4 Revised Progress Schedules. The contractor shall provide a revised progress schedule, which will then become the current progress schedule:

(a) When departure from the existing progress schedule makes it apparent to the engineer or the contractor that the project will not be completed in the time provided in the contract.

(b) When the engineer or the contractor determines that the progress schedule requires revisions for any reason.

108.5 Labor, Methods and Equipment. The contractor shall at all times employ sufficient labor, methods and equipment for prosecuting the work to full completion in the time and manner required by the contract.

108.5.1 All workers shall have sufficient skill and experience to properly perform work assigned. The engineer may demand the dismissal of any person employed by the contractor in, about or upon the work who engages in misconduct, is incompetent or negligent in the due and proper performance of assigned duties, or who neglects or refuses to comply with any proper directions given. Such a person shall not again be employed thereon without the written consent of the engineer. Should the contractor continue to employ or re-employ any such person, the engineer may suspend the work until the contractor complies with such orders.

108.5.2 All equipment used on the work shall be of sufficient size and in such mechanical condition to meet requirements of the work and to produce satisfactory work. The condition or use of equipment on any portion of the project shall not cause damage to the roadway, adjacent property or other highways, or injury to any person.

108.5.3 The intent of the contract is to provide performance-type specifications to the extent consistent with producing finished work meeting the intent of the contract documents.

Therefore, the methods and equipment to be used by the contractor in accomplishing the work will not be prescribed in the contract, and the contractor is free to use any method or equipment that will accomplish the contract work in conformity with the requirements of the contract. The failure of the engineer to object to contractor's equipment or methods will never constitute agreement that the equipment or methods used are appropriate.

108.5.4 If the contract specifies that the construction be performed by the use of certain methods and equipment, such methods and equipment shall be used unless otherwise authorized by the engineer. If the contractor desires to use a method or type of equipment other than those specified in the contract, authority shall be requested from the engineer. The request shall be in writing, including a full description of the proposed methods and equipment to be used and an explanation of the reasons for making the change. If approval is given, the contractor shall be fully responsible for producing work in conformity with the contract. If the engineer determines that the work produced does not meet contract requirements after use of the substitute method or equipment, the contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining construction with the methods and equipment specified in the contract. The contractor shall remove deficient work and replace the work as specified in the contract, or take such other corrective action as directed by the engineer. Except as provided in Sec 104, no change will be made in the basis of payment for the construction items involved or in contract time as a result of approving any method or equipment change.

108.6 Temporary Suspension of Work. The engineer has authority to suspend any or all of the work in accordance with Sec 105 for such time as necessary. If it becomes necessary to stop work for an indefinite period, the contractor shall store all material in a manner that will protect the material from theft or damage, shall not unnecessarily obstruct traffic, shall take every precaution to prevent damage to or deterioration of work performed, shall provide suitable drainage of the roadway by opening ditches, shoulder drains, etc. and shall erect temporary structures where necessary. The contractor may suspend work for reasonable cause upon written approval from the engineer. During such a period in which work is suspended, liquidated damages will not accrue unless such suspension is due to the contractor's failure to comply with the contract. If work has been suspended, the contractor shall notify the engineer in writing at least 48 hours before resuming operations.

108.7 Contract Time for Completion of the Work. The time for the completion of the work is specified by calendar days, calendar date or working days in the contract. Time is an essential element of the contract, and it is therefore important that the work be pursued vigorously to completion.

108.7.1 Completion by Calendar Days or Calendar Date. Any computation of time by calendar days or calendar date will be based on the seasonal importance of days on the basis of weighted time tables on file in the Office of the Secretary of the Commission and available on the MoDOT website. If a change in the work is directed by the engineer, the contractor will be allowed an extension of contract time based on the weighted time tables and the ratio of the cost of such additional work to the contract price, unless it can be established that the additional work required more time than is indicated. In such cases, the actual time required, as determined by the engineer, may be allowed.

108.7.1.1 If the notice to proceed is not issued and effective within 35 days after the award or the later date specified in the contract due to any failure of the Commission, the contractor will be given an extension of contract time equal to the number of calendar days after the 35th day or the later date specified in the contract, until the notice to proceed is effective. Such a delay in the effective date of the notice to proceed will be an excusable, noncompensable delay.

108.7.1.2 The contractor will not be entitled to any extension of contract time because of unsuitable weather conditions or the effects of weather conditions unless authorized in writing by the engineer as an excusable, noncompensable delay under Sec 108.14.1.

108.7.2 Completion by Working Days. If the time for the completion of the work is based on working days, this time will be specified in the contract. A working day will be defined as any day when, in the judgment of the engineer, soil and weather conditions would permit the major operation of the project for six hours or more, unless other unavoidable conditions prevent the contractor's operations. If conditions require the contractor to stop work in less than six hours, the day will not be counted as a working day.

108.7.2.1 December 15 to March 15, both dates inclusive and Saturdays, Sundays, and holidays established by law will not be counted as working days.

108.7.2.2 The count of working days will start on the date the contractor starts construction operations, or the effective date of the notice to proceed, whichever is earlier. The engineer will determine when a working day is to be charged. The engineer may make allowance for working days lost due to causes justifying their elimination from the count of working days. No allowance will be made for delay or suspension of the prosecution of the work due to fault of the contractor. On each contractor pay estimate the engineer will give the contractor written notice of the number of working days charged since the preceding pay estimate. Any objection by the contractor to the number of working days so charged shall be made in writing within five days, setting forth the contractor's objections and specifying the reasons therefore, or those objections shall be forever waived and will not constitute the basis for an excusable or compensable delay.

108.7.2.2.1 Where projects specify signal or lighting equipment as the major work items, working days will not begin until 104 calendar days after the date of the Notice to Proceed or until such time as the signal or lighting equipment is available to the contractor, or until the contractor begins work, whichever date is the earliest, to allow time for the fabrication and delivery of signal posts and lighting poles.

108.7.2.3 In case the final value of all work performed exceeds the original contract amount, an extension in the working days will be granted the contractor. The extension will be made by increasing the contract time by the ratio of the total final cost of all work performed under the contract to the total amount of the original contract. Incentive/disincentive, bonus or deduction adjustments will not be used in this computation. For a combination of projects awarded as a single contract, the extension will be made in a similar manner. If it can be established that the extra work required more time than indicated, the actual number of working days required, as determined by the engineer, may be allowed.

108.8 Liquidated Damages for Failure or Delay in Completing Work on Time.

108.8.1 If the contractor or, in case of default, the surety fails to complete the work within the time specified in the contract, or within such extra time as may be allowed in the preceding sections, a deduction of an amount specified in the contract will be made for each day that the contract remains incomplete after the time allowed for completion. The amount specified in the contract is agreed upon, not as a penalty, but as liquidated damages for loss to the Commission and the public. This amount will be deducted from any money due the contractor. The contractor and surety will be liable for all liquidated damages. Permitting the contractor to continue the work after the expiration of the specified time or any extension of time will not constitute a waiver by the Commission of any contractual rights.

108.8.1.1 A combination of projects awarded as a single contract will be considered as one unit for the determination of liquidated damages.

108.8.1.2 Regardless of the method used to specify contract time for completion of the work, liquidated damages will not be charged as follows:

(a) From December 15 through March 15, both dates inclusive.

(b) For Saturdays, Sundays, and holidays established by law.

(c) During any period of sod maintenance, as specified in Sec 803, if such maintenance is the only work remaining and the contractor can perform the maintenance without inconveniencing the traveling public.

(d) During the final 15 consecutive day test period for a signal system, as specified in Sec 902, provided all other work has been completed.

108.8.2 The Commission will not be required to file a claim or counterclaim under Sec 105.16.5 or any other provision, to assess or retain liquidated damages.

108.8.3 The contractor and surety shall be liable for liquidated damages chargeable under the contract when the work is completed after default of the contract, unless the delay is caused by the Commission. A delay in the work or the final completion of the project caused by the Commission shall not void the provisions of the contract as to liquidated damages and will be considered an excusable, noncompensable delay.

108.9 Signal and Lighting Malfunctions. If the engineer invokes the option under Secs 901, 902 or 903 to have MoDOT personnel or a third party correct a lighting, signal or sign lighting malfunction, the contractor will be charged for the service. If MoDOT personnel make the correction, the charge will be computed as five times the cost for all replacement parts, equipment rental, salaries and fringe benefits. If a third party makes the correction, the contractor will be charged 1.2 times the charges billed the Commission by the third party. However, in no case will the charge be less than $100.

108.10 Default of Contract. After notice and an opportunity to remedy, the engineer may declare the contractor in default, if the contractor:

(a) Fails to begin the work under the contract within the time specified to begin work.

(b) Fails to perform the work with sufficient resources to assure the timely completion of the work.

(c) Fails to perform the work in accordance with the contract requirements, or neglects or refuses to remove and replace rejected material or unacceptable work.

(d) Discontinues the prosecution of the work.

(e) Fails to resume work that has been discontinued within a reasonable time after notice to do so.

(f) Becomes insolvent, is declared bankrupt or commits any act of bankruptcy or insolvency, allows any final judgment to remain unsatisfied or makes an assignment for the benefit of creditors.

(g) Fails to comply with contract requirements regarding prevailing wage payments, DBE or EEO requirements.

(h) Is a party to fraud.

108.10.1 The engineer will give notice in writing to the contractor and surety of the condition described in Sec 108.10, and advise the contractor and surety of the actions required for remedy. If the contractor does not proceed to remedy the condition within ten days of receipt of this notice, the engineer may declare the contractor in default. The declaration of default will be made in writing to the contractor and the surety.

108.10.2 If within ten days after receipt of the declaration of default, the surety does not proceed to assume the contract for completion under the direction of the engineer, the Commission has full power and authority, without impairing the obligation of the contract or the bond:

(a) To take over the completion of the work.

(b) To appropriate or use any or all project material and equipment that is suitable and acceptable.

(c) To enter into agreements with others.

(d) To use such other methods as in its judgment may be required for the completion of the contract in an acceptable manner.

108.10.3 Liability for Costs. The contractor and surety shall be liable for all costs and expenses incurred in completing the work, and for all liquidated damages in conformity with the contract. The contractor and surety are obligated to comply with all change orders and directives of the engineer to the same extent, and for the same compensation, if any, as the contractor would have been in the absence of default. In case the sum of such liquidated damages and the expense so incurred is less than the sum that would have been payable under the contract if the work had been completed by the contractor, the contractor or surety will be entitled to receive the difference. If the sum of such expense and such liquidated damages exceeds the sum that would have been payable under the contract, the contractor and surety will be liable and shall pay the amount of such excess. This provision will apply regardless of whether the surety or the Commission completes the contract work. The contractor and surety will solely be liable for the costs and expenses of a completing contractor, laborers and suppliers with which either has contracted.

108.10.4 If it is determined after termination of the contractor's right to proceed that the contractor was not in default, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Commission under Sec 108.11. Sums to which a contractor may be entitled as a result of the contract termination will be limited to amounts determined under Sec 108.11.

108.10.5 Sureties' Continued Acceptability. A surety failing to proceed within ten days after the written declaration of default by the engineer under Sec 108.10 may be required to show cause to the Commission why the surety should continue to be accepted for future bonds.

108.11 Termination of Contract for Convenience of the Commission. The Commission may terminate the entire contract, or any portion thereof, if the engineer determines that a termination is in the Commission's best interest. The engineer will deliver to the contractor and surety a notice of termination specifying the extent of termination and the effective date. A termination of the contract for convenience may be directed at any time after the Commission has made a determination to award a contract. The bidding documents may

provide for a termination of the contract for convenience under this section upon the occurrence or nonoccurrence of a specified event after bid opening.

108.11.1 Submittals and Procedures. After receipt of a notice of termination, the contractor shall immediately proceed with the following obligations:

(a) Stop work as specified in the notice.

(b) Place no further subcontracts or orders for material, supplies, services or facilities, except as necessary to complete the portion of the contract that has not been terminated.

(c) Terminate all subcontracts to the extent they relate to the work terminated.

(d) Settle with subcontractors and suppliers all outstanding liabilities arising from the termination.

(e) Transfer title and deliver to the Commission, work in progress, completed work, supplies and other material produced or acquired for the work terminated, and completed or partially completed plans, drawings, information and other property that, if the contract had been completed, would be required to be furnished to the Commission.

(f) Complete performance of the work not terminated.

(g) Take any action that the engineer directs to protect and preserve contract-related property that is in the possession of the contractor in which the Commission has or may acquire an interest.

108.11.2 Settlement Provisions. When the Commission orders termination of all or a part of the contract effective on a certain date, completed items of work as of that date will be paid for at the contract unit price. Payment for partially completed work will be made either at agreed prices or under the provisions below. When items are eliminated in their entirety by such termination, the contractor will be paid for actual work done and actual costs incurred before notification, including mobilization of equipment or material.

108.11.2.1 Additional Costs. Within 60 days of the effective termination date, the contractor shall submit any request for additional damages or costs not covered in Sec 108.11 or elsewhere in the contract. Such a request may include only such cost items as: mobilization, overhead expenses proven to be attributable to the project or the part terminated and not paid for under work not terminated, subcontractor costs not otherwise paid for, actual idle equipment and idle labor cost only for any time the work is stopped in advance of the termination date, guaranteed payments for private land usage as part of the original contract, and any other actual cost for which the contractor feels reimbursement should be made.

108.11.2.1.1 Anticipated profits, including anticipated earnings on usage of owned equipment, and impact, delay or other direct or indirect costs resulting from this termination that are not expressly authorized, will not be compensable as part of any settlement.

108.11.2.1.2 The contractor and the engineer may agree upon the whole or any part of the amount to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. The agreed amount may not exceed the total contract price as reduced by the amount of payments previously made and the contract price of work not terminated. The contract will be amended and the contractor paid the agreed amount.

108.11.2.2 Additional Cost Review. If the contractor and the engineer fail to agree on the whole amount to be paid the contractor because of the termination of work, the Commission will pay the amounts determined as follows, but without duplication of any amounts agreed upon in Sec 108.11.2.1:

(a) For contract work performed before the effective date of termination, the total, without duplication of any items of:

(1) The actual cost of work performed.

(2) The cost of settling and paying termination settlements under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in Sec 108.11.2.1.

(3) A sum for profit on the actual cost of work performed as determined by the engineer to be fair and reasonable. The engineer will allow no profit under this section if the contractor's costs incurred on work performed exceed the contract prices paid.

(b) The reasonable costs to settle the work terminated, including:

(1) Internal accounting and clerical expenses reasonably necessary for the preparation of termination settlement proposals and support data, including expenses for termination and settlement of subcontracts.

(2) Storage, transportation and other costs incurred, reasonably necessary for the preservation, protection or disposition of the termination inventory.

(c) For normal spoilage and to the extent that the engineer expressly accepts the risk of loss. The engineer will exclude the fair value of property that is destroyed, lost, stolen or damaged so as to become undeliverable to the Commission or to the buyer.

108.11.2.2.1 In arriving at the amount due the contractor under this clause, there will be deducted:

(a) All advanced payments for mobilization, services or facilities, or other payments to the contractor under the terminated portion of the contract.

(b) Any claim that the Commission has against the contractor under the contract.

(c) The agreed price for or the proceeds from the sale of material, supplies or other items acquired and sold by the contractor, and not recovered by or credited to the Commission.

(d) Any costs saved as a result of the termination.

108.11.2.2.2 If the termination is partial, the contractor may file a proposal with the engineer for an equitable adjustment of the price or prices of the continued portion of the contract. The engineer will make any equitable adjustment agreed upon. Any proposal for an equitable adjustment under this clause shall be requested within 60 days from the effective date of termination unless extended in writing by the engineer.

108.11.2.2.3 The contractor shall maintain and make available all project cost records to the engineer for audit to the extent necessary to determine the validity and amount for each item requested. This will include, but is not limited to, all items described in Sec 105.16. These records and documents shall be made available to the engineer at the contractor's office at all

reasonable times, without any direct charge. If approved by the engineer, photographs, microphotographs or other authentic reproductions may be maintained instead of original records and documents.

108.11.3 Effect of Termination. Termination of the contract or portion thereof will not relieve the contractor of contractual responsibilities for the work completed, nor will termination relieve the surety of the surety's obligation for and concerning that part of the contract not terminated or any just claim arising out of the work performed.

108.12 Notice to Contractor and Surety. Notice to the contractor, in case of default or termination of the contract, shall be deemed to be served when delivered to the person in charge of any office used by the contractor, the contractor's representative at or near the work or by certified mail addressed to the contractor's last known place of business. Notice to the surety shall be deemed served when mailed to the surety's address as shown in the contract by certified mail.

108.13 Termination of Contract for Misconduct. For the purposes of the following provision, "state" will include the State of Missouri and any other state, commonwealth or territory of the United States. The Commission may declare the contract to be terminated at any time after the contract is awarded and prior to final acceptance of the project, for any one or more of the acts set forth below, if the act occurred after the bid opening or within two years immediately preceding the date of the bid opening, unless the act is a basis for an adverse action under 49 CFR, Part 29 in which case the time limit will not apply, on any Commission or other federal, state or local government or privately awarded contract:

(a) Receiving or giving any currency or item of value in order to influence the competitive bidding process or the award of a competitively bid contract; bid-rigging, collusion or any similar act or communication with any person or firm in restraint of competitive bidding on a contract; or to obtain or grant an advantage in obtaining the award of such a contract.

(b) Fraud, dishonesty or a material misrepresentation or omission of fact in any request for proposal or bid submitted to a private firm or governmental agency, or in any contract documents submitted to such a firm or agency.

(c) Making or receiving kickbacks or payments of currency or any item of value in order to obtain or retain any contract or payment thereunder, or in return for an agreement to make or for the making of any false statements or material misrepresentations or omissions of fact to any federal, state or local governmental agency or private firm relevant to contract compliance.

(d) Suspension, debarment or other disqualification of the contractor, or determination that the contractor is not a responsible bidder for public contracting purposes, by any federal, state or local governmental agency, regardless of whether the sanction is still in effect at the time of the bid or contract award by the Commission.

(e) Conviction or adjudication of guilt in any criminal proceeding in a federal or state court, regardless of whether sentence was suspended or executed, for any act an element of which is fraud, dishonesty or moral turpitude, which conduct is relevant to a determination of the responsibility of the contractor.

(f) Commission of any act or failure to act, such that the contractor is subject to the determination that the contractor is not a responsible bidder under the contract or under applicable Missouri or federal law.

108.13.1 The acts, omissions and liabilities of persons or firms affiliated with the contractor or of persons that are principals of the contractor, are those of the contractor, unless the circumstances clearly negate that conclusion. Persons or firms are "affiliates" of each other if, directly or indirectly, either one controls or has the power to control the other or a third person controls or has the power to control both. Examples of control include, but are not limited to: interlocking management or ownership, identity of interests among family members, shared facilities and equipment, common use of employees on projects or a new business entity organized following the determination of ineligibility or non-responsibility of a person or firm which has the same or similar management, ownership or principal employees as the ineligible person. A "principal" will be defined as an officer, director, owner, partner or other natural person within a firm with primary management, supervisory or contracting responsibilities.

108.13.2 The Commission will not declare the contract terminated pursuant to this section if the contractor made a full and complete disclosure of the acts and circumstances described in Sec 108.13 to the Commission in the bid or in writings submitted with the bid and the Commission did not determine the contractor to be non-responsible prior to making the award of the contract. The Commission will not be precluded from terminating the contract under this section if the information provided by the contractor did not constitute a full and complete disclosure of all facts and circumstances pertinent to the issue of the responsibility and integrity of the contractor.

108.13.3 The procedures for notice of the proposed termination of the contract and the contractor's right to be heard regarding that proposed action will be those in accordance with a proposed disqualification or suspension under the provisions of 7 CSR 10-18. After notice and an opportunity to be heard, upon a finding of the existence of a basis to terminate a contract under this section, the Commission may terminate the contract immediately or at the occurrence of some specific date or event in the future, prior to project completion, upon delivery of a written notice to the contractor by actual service or by certified mail, return receipt requested, sent to the address of record of the contractor. Effective with the contract termination date, the contractor shall discontinue further work on the project and shall instruct subcontractors and suppliers to do the same, other than to remove promptly the contractor's personnel, equipment and supplies from the project site. The contractor will be paid for all completed work to that date at the contract price. At the option of the engineer, the Commission may assume the possession and cost of any specially fabricated material or supplies for the project that have been ordered prior to notice of termination, but have not been installed on the date of termination. The contractor and surety will be liable to the Commission for all costs and expenses incurred by the Commission in completing the project, including, but not limited to, the Commission's costs to redraft and rebid the project, which costs and expenses exceed the total of the contractor's bid price plus additional expenses allowed by the engineer during the contractor's work on the project, less the amount paid to the contractor by the Commission. The Commission will not be liable for damages for breach of contract or in any other action or respect for declaring a default if one exists under this section and for terminating the contract prior to completion by the contractor.

108.13.4 The satisfactory performance of a contract, prior to the notice to the contractor of the intent to terminate the contract for misconduct, will not be a basis to determine whether the contract may be terminated for misconduct under this section.

108.13.5 The contractor shall file any claim the contractor has against the Commission within 60 days after the effective date of termination, pursuant to the procedures of Sec 105. The Commission will file any claim the Commission has against the contractor or surety within 60 days of the date of final acceptance of the project, whether or not it is renumbered or redesigned, and whether completed by the surety, by a successor contractor retained by the Commission, or by the Commission itself. Any Commission claim will be filed pursuant to the procedures of Sec 105.

108.14 Determination of Compensation and Contract Time Extension for Excusable, Noncompensable and Compensable Delays. An extension of the contract time may be granted under the following conditions provided documentation has been given to the engineer in accordance with Secs 108.14.3 through 108.14.5. Strict adherence to the provisions of this section will be a condition precedent to the contractor's entitlement to an extension of contract time or compensation because of project delays.

108.14.1 Excusable or Noncompensable Delay. Contract time allowed for the performance of the work may be extended for delays caused by acts of God, acts of the public enemy, fires, floods, earthquakes, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather or other delays not caused by the contractor's fault or negligence.

108.14.2 Compensable Delay. Contract time allowed for performance of the work may be extended for delays caused by the Commission. The contractor may be granted an extension of time and additional compensation only as provided by Sec 109.

108.14.3 Notification of Delay. Within seven days of the occurrence of a delay to the prosecution of any phase of the work, the contractor shall notify the engineer in writing of such a delay and indicate that a request for delay consideration will be filed. Delay costs incurred prior to notifying the engineer that operations have been delayed will be noncompensable.

108.14.4 Procedures Following a Delay. The contractor shall keep daily records of all non-salaried labor, material costs and equipment expenses for all operations affected by the delay.

108.14.4.1 The contractor shall maintain a daily record of each operation affected by the delay and the station location of the operations affected. Daily records of the operations and stations will also be maintained by the engineer. Each Monday, the contractor shall compare the previous week's daily records with the records kept by the engineer. The contractor shall also prepare and submit written reports to the engineer each Monday containing the following information:

(a) Number of days behind schedule due to the delay.

(b) A summary of all operations that have been delayed or will be delayed.

(c) In the case of a claimed compensable delay, the contractor shall explain how the Commission's act or omission delayed each operation and estimate the amount of time required to complete the project.

(d) An itemized list of all extra costs incurred, including:

(1) How the extra costs relate to the delay and how the costs are being calculated and measured.

(2) The identification of all non-salaried project employees for whom costs are being compiled.

(3) A summary of time charges for equipment, identified by manufacturer's year and model and the contractor's number, for which costs are being compiled.

108.14.4.2 The contractor shall provide written notice to the engineer within seven days of the results of the comparison of the detailed reports performed each Monday and shall define any disagreements between specific records.

108.14.4.3 Failure to meet to review the engineer's records or to report disagreements between the records will be considered conclusive evidence that the engineer's records are accurate.

108.14.5 Procedures Following Completion of Work Allegedly Delayed. Within the earlier of 15 days of completion of any phase of work allegedly delayed, or of project completion, the contractor shall submit a report to the engineer containing the following information:

(a) A description of the operations that were delayed and the documentation and explanation of the reason for the delay, including all reports prepared by or for the contractor.

(b) An as-built chart or other graphic depiction of how the operations were delayed based on the contractor's most recent progress schedule prior to the delay event.

(c) An item by item measurement and explanation of extra costs requested for reimbursement due to the delay.

108.14.5.1 All costs shown in the report submitted to the engineer must be directly caused by the delay event and shall reflect the actual costs incurred as shown on the contractor's project cost records kept in the ordinary course of business.

108.14.5.2 The engineer will review the contractor's submission and any reports prepared for the engineer. A written decision will be provided to the contractor within 60 days of the receipt of the complete contractor's submission. This time may be extended if the engineer requires additional information. The contractor shall state affirmatively in writing when the contractor has made a complete submission of information regarding a delay event.

108.14.5.3 In the case of compensable delays, if the engineer determines that the Commission is responsible for delays to the contractor's operations, the engineer's written decision will reflect the nature and extent of any resulting equitable adjustment to the contract in accordance with Sec 109.

108.15 Suspension of Work Directed by the Engineer.

108.15.1 If the performance of all or any portion of the work is suspended or delayed by the engineer for an unreasonable period of time not originally anticipated, customary or inherent to the construction industry, and the contractor believes that additional compensation 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 seven days of receipt of the notice to resume work. The request shall set forth the reasons and support for such an adjustment. The procedures of Secs 108.14.4 and 108.14.5 will apply to requests for additional compensation or time claimed by the contractor as a result of a suspension of work directed by the engineer under this section.

108.15.2 Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost or time required for the performance of the contract has increased as a result of such a suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, suppliers or subcontractors, and not caused by weather, the engineer will make an adjustment, excluding profit, and modify the contract in writing

accordingly. The engineer will notify the contractor of the engineer's determination whether or not an adjustment of the contract is warranted.

108.15.3 No contract adjustment will be made unless the contractor has submitted the request for adjustment within the time prescribed.

108.15.4 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 an adjustment is provided for or excluded under any other term or condition of the contract.

SECTION 109

MEASUREMENT AND PAYMENT

109.1 Measurement of Quantities. All work completed under the contract will be measured by the engineer according to United States standard measure or will be paid for on a contract quantity basis as set out elsewhere in these specifications. The method of measurement and basis of payment will be made to the nearest whole number unless specified otherwise. When the contract quantity of any item is found to include appreciable errors, or when an authorized revision of the plans is made, the quantity will be corrected before making final payment. 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.

109.2 Scope of Payment.

109.2.1 Compensation. The contractor shall receive and accept compensation provided for in the contract as full payment for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage or expense arising from the work or the prosecution thereof subject to Sec 109.8.

109.2.2 Completed Improvements. The payment of any current or final estimate, or the acceptance of any portion of the work as provided in the specifications, will not affect the obligation of the contractor to submit for final acceptance a completed improvement in accordance with the contract.

109.3 Compensation for Altered Quantities. When the accepted quantities of work vary from the quantities in the contract, the contractor shall accept payment at the original contract unit prices for the accepted quantities of work done. No allowance will be made for any increased cost, except as provided in Sec 104 and Sec 108.

109.4 Differing Site Conditions and Changes in the Work. Contract adjustments to compensate for changes in the work or extra work caused by differing site conditions or changes in the work performed in accordance with Sec 104 will be determined by use of one of the following methods, in order of precedence

109.4.1 Contract Unit Prices. Where contract unit prices exist, the contract unit price will always be applied without deviation, unless the effect of a differing site condition or a significant change in the character of the work requires an equitable adjustment to a contract unit price under the terms of this contract. Equitable adjustments will exclude any anticipated profits.

109.4.2 Unit Prices or Lump Sum Amount Agreed Upon in the Change Order Authorizing the Work. Where contract unit prices do not exist for the work to be done, the parties may agree to such unit prices or a lump sum price for that work. Where an equitable adjustment to a unit price is required, the parties may agree to the adjustment to be made to the contract unit price, excluding any anticipated profits. Prior to agreeing upon such unit or lump sum prices, the engineer may require from the contractor any information to which the engineer is authorized under Sec 104.

109.4.3 Equitable Adjustment. In all other cases, except work ordered to be performed under force account, the engineer will make an equitable adjustment to or determination of the affected contract prices for the work, based on the contractor's actual costs to perform the work. This determination will be consistent with the contractor's other proven costs to perform the contract work, as shown in the contractor's bid computations and project cost records, produced and kept in the ordinary course of business. Prior to making an equitable adjustment, the engineer may require from the contractor any information relevant to that determination, including the information authorized under Sec 104. The condition precedent to determination of contractor entitlement and amount of any contract adjustment and Commission liability will be that the adjustment:

(a) Is supported by demonstrated actual excess costs incurred, including by an audit of the actual costs, unless expressly waived by FHWA on federal aid projects.;

(b) Has a basis in the terms of the contract;

(c) Has a basis in terms of applicable Missouri law and;

(d) Is in accordance with prevailing principles of public contract law.

109.4.4 Application of Force Account. Force account, as computed under Sec 109.5, will apply to determine the amount of compensation for a contract adjustment under Sec 109.4 only when expressly directed to be used in writing by the engineer and in no other instance whatsoever for any determination of contract adjustments for any work performed on the project, whether claimed under the contract, for breach of the contract, arising from a claimed representation by which the contract was induced or any other basis.

109.5 Force Account Computation.

109.5.1 Labor. For all lead workers and laborers, the contractor will receive the rate of wage paid for each hour that said lead workers and laborers are engaged in the force account work.

109.5.1.1 The contractor will receive the actual costs paid to, or on behalf of, employees for subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits, if such amounts are required by the collective bargaining agreement or employment contract applicable to the classes of labor employed on the work.

109.5.1.2 An amount equal to 20 percent (5 percent profit and 15 percent overhead) of the sum of the above items will also be paid the contractor.

109.5.2 Insurance and Taxes. For property damage, liability and worker's compensation insurance premiums, unemployment insurance contributions and social security taxes on the force account work, the contractor will receive the actual cost paid, to which 20 percent (5 percent profit and 15 percent overhead) will be added.

109.5.3 Material. For material accepted by the engineer and used, the contractor will receive the actual cost of such material delivered on the work, including transportation charges paid (exclusive of equipment rentals as hereinafter set forth), to which cost 20 percent (5 percent profit and 15 percent overhead) will be added. For all material used in connection with, but not entering permanently into the work, reasonable depreciation will be allowed.

109.5.4 Equipment. For only that contractor-owned equipment necessary to accomplish the force account work, including all fuel and lubricants, tires and repairs, the contractor will be allowed an hourly rate equal to the monthly rental rate divided by 176 hours as set out in the Rental Rate Blue Book for Construction Equipment on file in the Office of the Secretary of the

Commission at the time the work is begun. The allowed rates will be the rate adjustment factor multiplied by the bare hourly rates multiplied by the regional adjustment factor, plus the estimated operating cost per hour. The allowed time will be the actual operating time on the work. For the time required to move the equipment to and from the site of the work and any authorized standby time, the rate will be 50 percent of the hourly rate after the actual operating costs have been deducted. All allowed time shall fall within the authorized working hours for such extra work. No payment will be allowed for time elapsed while equipment is broken down or being replaced. The hourly rental rates will apply only to equipment that is already on the job. If the actual unit of equipment to be used is not listed in the schedule, the rate listed for similar equipment with the approximate same initial cost shall be used. Equipment to be used and all prices shall be agreed upon in writing before such equipment is used. An amount equal to 20 percent (5 percent profit and 15 percent overhead) of the sum of these items will also be paid the contractor. Whenever it is necessary for the contractor to rent equipment, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies. All prices shall be agreed upon in writing before such equipment is used.

109.5.5 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. Jobsite and home office overhead expenses shall be considered fully compensated by the payments provided in Sec 109.5.

109.5.6 Subcontracted Work. For administration and all overhead costs in connection with approved subcontract work, the contractor will receive an amount equal to five percent of the actual cost of the subcontracted work. The engineer has the authority to require alterations in the equipment and labor force assigned to force account work, to limit authorization of overtime work to that normally used on a project for work of similar nature or to require overtime work when an emergency exists, and to require the cessation of force account work when adverse conditions seriously limit productivity.

109.5.7 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:

(a) Name, classification, date, daily hours, total hours, rate and extension for each laborer and foreman.

(b) Designation, dates, daily hours, total hours, rental rate and extension for each unit of machinery and equipment.

(c) Quantities of material, prices and extensions.

(d) Transportation of material.

(e) Cost of property damage, liability and worker's compensation insurance premiums, unemployment insurance contributions and social security.

109.5.7.1 Statements shall be accompanied and supported by receipted invoices for all rental equipment, material used and transportation charges.

109.5.7.2 If material used on the force account work is not specifically purchased for such work but is taken from the contractor's stock, then in lieu of the invoices, the contractor shall furnish an affidavit certifying that such material was taken from contractor's stock, that the

quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the contractor.

109.5.8 Compensation. Each day the contractor's representative and the engineer shall compare records of the cost of work done as ordered on a force account basis. Two copies of these records will be made by the engineer on forms provided by the Commission, and the copies shall be signed at the end of each day by both the engineer and the contractor, one copy to be retained by the engineer, and one copy to be retained by the contractor. The total payment made, as provided in Sec 109.5, shall constitute full compensation for such work.

109.6 Method of Payment. Payment to the contractor for furnishing all material and performing all work under the contract will be deposited electronically in an account number and financial institution designated by the contractor on form MO 300-1278.

109.7 Partial Payments.

109.7.1 Payment Estimates. The engineer will make semi-monthly payment estimates in writing for the material in place and the work performed during the semi-monthly interval and the value thereof at the contract unit bid prices. For partially complete items, the proper percentage with relation to completion will be allowed.

109.7.2 Material Allowance. The engineer may, in any payment estimate, include the value of any non-perishable material that will be finally incorporated in the completed work. The material shall be in conformity with the plans and specifications in the contract, and shall not have been used at the time of such estimate. The value of such material in a single submission from one supplier shall be no less than $10,000.00. The material shall be delivered to the project or other location that is approved by the engineer. Any storage area not within the right of way shall be leased at the contractor's expense with provisions for right of entry by the engineer during the period of storage. Invoices for material payment shall be submitted to the engineer at least four days prior to the estimate date. Receipted invoices for all material payments previously allowed on the estimate shall be submitted to the engineer within 42 days of the date of the estimate on which material allowance was made or such material allowance will be deducted from future payments. The amounts paid for such material shall reduce the amount of other partial or final payments due the contractor for the work performed as the materials are fabricated or incorporated in the completed work.

109.7.2.1 No partial payment will be made for living or perishable plant material until planted.

109.7.2.2 The engineer may also, on contracts containing 100 tons (100 Mg) or more of structural steel, include in the estimate prepared for partial payment, the value of structural carbon steel or structural low alloy steel, or both, which is to form a part of the completed work and which has been produced and delivered by the steel mill to the fabricator.

109.7.2.2.1 The required receipted mill invoice, billing, title or assignment documents or other documents furnished by the contractor shall include certified mill test reports as described in Sec 1080, containing complete material description, identification, weights (masses), dimensions, heat and unit numbers, and cost data.

109.7.2.2.2 The structural steel shall be stored separately and used only for the fabricated structural steel in the contract.

109.7.2.2.3 The weight (mass) of the structural steel considered for partial payment shall not exceed the contract quantity.

109.7.2.2.4 The payment of structural steel, as described in these specifications, will not exceed 80 percent of receipted mill invoice value.

109.7.2.3 The engineer may also include in any payment estimate an amount not to exceed 90 percent of the invoice value of any inspected and accepted fabricated structural steel items, fabricated structural aluminum sign trusses, structural precast items and permanent highway signs providing the total invoice value of these items is no less than $25,000 for each storage location for each project.

109.7.2.4 All material furnished for the work as noted in these specifications will be subject to shop inspection by the engineer.

109.8 Final Acceptance and Payment. When the project has been accepted as provided in Sec 105, the engineer will prepare the final tabulation of the quantities of work performed. All prior partial estimates and payments will be subject to correction in the final tabulation and payment. The contractor will be paid the entire sum found to be due after deducting all previous payments and all amounts to be retained or deducted under the provisions of the contract. The contractor shall submit the following for file with the Commission:

(a) An affidavit, on the form prescribed by the Commission, to the effect that all payments have been made and all claims have been released for all material, labor and other items covered by the contract bond.

(b) The written consent of the surety to such payment.

(c) Any other documents that may be required by the contract.

109.8.1 Final Payment and Claims. If said affidavit regarding subcontractor and third party debts and claims cannot be given because of a dispute as to the amount or legality of a claim, the engineer, with the consent of the surety, may consent to and make payment of all of the final amounts due the contractor if:

(a) The engineer is of the opinion that the claim has not been paid solely because the contractor is, in good faith, questioning the legality of said claim or its amount.

(b) The engineer is further satisfied that there is good and sufficient bond to fully protect said claimant.

(c) The contractor's affidavit clearly sets out the facts as to the name and address of the unpaid claimant or claimants, the amount of the disputed claim, and a brief statement of the cause of the dispute.

109.8.2 Corrections. Final acceptance will not prevent the Commission from correcting any measurement, estimate or certificate made before or after completion of the contract. The Commission will not be prevented from recovering, from the contractor or surety, or both, overpayments made or costs sustained by the Commission for failure of the contractor to fulfill the obligations under the contract. A waiver on the part of the Commission of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

109.8.3 Defects. The contractor and surety shall be liable to the Commission for latent defects, fraud or such gross mistakes as may amount to fraud, or as regards the Commission's rights under any warranty or guaranty without prejudice to the terms of the contract.

109.9 Retained Percentage.

109.9.1 Withholding of Retained Percentage.

109.9.1.1 Retainage may be initiated during contract performance if the engineer determines that certain events have occurred, including:

(a) Events where federal or state law applicable to the contract require payments be withheld to enforce a contract obligation.

(b) Events where the contract otherwise specifically provides for withholding payments to secure performance.

(c) The occurrence of a cause for withholding payment specified in the Missouri Prompt Pay Act, 34.057 RSMo. Retainage withheld under these circumstances will be as allowed by that statute.

(d) When projects are being charged liquidated damages or when it is determined by the engineer that assessment of liquidated damages is probable and imminent.

109.9.1.2 If retainage is initiated during contract performance, then the greater of the amount allowed under 34.057 RSMo or five percent will be deducted from the total amount of remaining work items of each estimate. The retained percentage will be released as provided in these specifications. The net amount due on the estimate will be certified to the Commission for payment. This method of retained percentage will not apply to Sec 808.6.

109.9.2 Release of Retained Percentage. As soon as practical after final acceptance of the work, and after final quantities have been computed or computations have reached a point where final quantities may be closely estimated, the retained percentage will be paid to the contractor. A portion of any retained percentage may be released after the project is open to all through traffic, or the work has been essentially completed. Prior to release of any retained percentage the contractor shall file with the Commission:

(a) An affidavit, on the form prescribed by the Commission, to the effect that all payments have been made and all claims have been released for all material, labor and other items covered by the contract bond.

(b) The written consent of the surety to such payment.

(c) Any other documents which may be required by the contract.

109.9.3 Release with Pending Claims. If said affidavit cannot be given because of a dispute as to the amount or legality of a claim, the engineer, with the consent of the surety, may consent to and make payment of all of final amounts and percentage due the contractor if:

(a) The engineer is of the opinion that the claim has not been paid solely because the contractor is, in good faith, questioning the legality of said claim or its amount.

(b) The engineer is further satisfied that there is good and sufficient bond to fully protect said claimant.

(c) The contractor's affidavit clearly sets out the facts as to the name and address of the unpaid claimant or claimants, the amount of the disputed claim, and a brief statement of the cause of the dispute.

109.10 Assignments. Neither the contract, nor any duties or obligations or rights of the contractor or the contractor's surety arising under, from or relating to the contract, or to be performed as required by the contract, and whether present or prospective, including, without limitation, money due at any time or any claim of any character arising from or relating to performance or nonperformance of the contract, whether for breach or otherwise, shall be assigned or transferred to any other person so as to bind or affect the Commission absent the express written consent of the surety and the Commission and upon a written request and compliance with such requirements as the engineer or Commission may provide.

109.11 Compensation for Project Delays. This provision will apply to and will control all contract adjustments, change orders and claims for additional compensation that are time related, resulting from compensable project delays, inefficiency, standby, extended performance or described in any other term.

109.11.1 Only the actual and documented additional costs associated with the following items will be recoverable by the contractor as an equitable adjustment for delay.

(a) Non-salaried labor expenses.

(b) Material costs.

(c) Equipment costs.

(d) Costs of extended job-site overhead.

(e) An additional ten percent of the total of items (a), (b), (c) and (d) for home office overhead and every other cost for which no specific allowance is provided.

109.11.2 All costs claimed shall be adequately documented when measuring additional equipment expenses (i.e. ownership expenses) arising as a direct result of a delay caused by MoDOT. Use of equipment rental rate guides for this purpose will be prohibited. Actual records kept in the usual course of business, measuring actual increased ownership expenses pursuant to generally accepted accounting principles will be the only acceptable method.

109.11.3 The parties agree that, in any adjustment for delay costs, MoDOT will have no liability for the following items of damages or expense.

(a) Profit in excess of that provided herein.

(b) Loss of profit.

(c) Labor inefficiencies.

(d) Equipment inefficiencies or reduced production.

(e) Home office overhead in excess of that provided in the percentage allowance in Sec 109.11.1 or herein if none of those percentages applies.

(f) Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities and insolvency.

(g) Indirect costs or expenses of any nature.

(h) Attorney's fees, claims preparation expenses or costs of litigation.

109.12 Change Orders. Except as otherwise provided for in the change order, an adjustment of the contract price or time of contract performance in a change order constitutes compensation in full to the contractor and the contractor's subcontractors and suppliers for all costs and time effects directly or indirectly attributable to the matter described in the change order, for all delays related thereto, for all impact, cumulative impacts and for performance of the change within the time stated. The surety's liability under the contract bond and contract shall not be limited to the penal sum as set forth in the contract bond. The surety shall be liable and responsible to the Commission for the contractor's entire performance and of all obligations arising under or from the contract, which shall include, but not be limited to, any change orders issued under the contract that increase the cost of the contract.

109.13 Prompt Payment to Subcontractors and Suppliers. The requirements set forth in this section will apply to all contracts where the federal government is participating in the cost of construction.

109.13.1 When the contractor receives any payment from the Commission, the contractor shall, within the earlier of fifteen days of receipt of that payment, or the date provided by the subcontract or purchase order, pay each subcontractor or supplier a sum, less only any retention provided by the subcontractor or purchase order or sum withheld as allowed by Sec 109.13.3, equal to one of the following:

(a) The value of that subcontractor's work, services or material included on the contractor payment estimate applicable to that payment.

(b) The amount of any material allowance under Sec 109.7.

(c) Such greater sum as provided by the subcontract or purchase order for work included on the contractor payment estimate.

109.13.2 Notwithstanding any conflicting provision in a subcontract or purchase order and subject only to the requirements of Sec 109.13.3, the contractor shall make final payment of the balance of all sums under a subcontract or purchase order, including any retention, within 30 days of the satisfactory completion of the subcontractor's work or services, or a supplier's final delivery of materials to be provided.

109.13.3 The contractor may withhold periodic payment or final payment to a subcontractor or supplier only for the following causes and only if that subcontractor or supplier is directly involved:

(a) The engineer has rejected specific areas or items of work or materials as not conforming to the contract or such areas or items of work or materials are deemed not suitable for payment.

(b) Unsatisfactory job progress.

(c) Defective construction work or materials not remedied.

(d) Disputed work, but only the disputed amount.

(e) Failure to comply with other material provisions of the contract.

(f) Third party claims filed, or reasonable evidence that a claim will be filed, but not claims covered by a subcontractor or supplier's insurance required by Sec 107.

(g) Substantial evidence of the subcontractor or supplier's failure to make timely payments for labor, equipment or materials; damage to the contractor or another subcontractor or material supplier, but not such damage as is covered by a subcontractor or supplier's insurance required by Sec 107.13.2.4.

(h) Substantial evidence that the subcontractor or supplier's work cannot be completed for the unpaid balance of the subcontract or purchase order sum, or a reasonable amount for retention.

109.14 Price Adjustment for Fuel. The method of price adjustment for the fuel used on various items of work that may be involved in the construction of this project will be based on "Fuel Usage Factors" for the various items as noted below:

Item of Work	Unit	Fuel Usage Factor
Class A Excavation	gal/yd^3 (L/m^3)	0.20 (0.99)
Unclassified Excavation	gal/yd^3 (L/m^3)	0.30 (1.49)
Class C Excavation (Includes Sandstone and Igneous Rock Excavation)	gal/yd^3 (L/m^3)	0.40 (1.98)
Embankment in Place	gal/yd^3 (L/m^3)	0.35 (1.73)
Bituminous Construction (Includes all Gal/Ton (L/Mg) of Plant Mix Asphalt Mixes)	Total Mix	2.65 (11.06)
Concrete Pavement Round to nearest 1" increment. (e.g. if 7.5" pavement use 8" factor). If less than 6" use 6" factor. If paid by CY convert to equivalent thickness.	gal/yd^2 (L/m^2) 6" (150) 7" (175) 8" (200) 9" (225) 10" (250) 11" (275) 12" (300) 13" (325) 14" (350)	 0.42 (1.90) 0.46 (2.08) 0.50 (2.26) 0.55 (2.49) 0.59 (2.67) 0.63 (2.85) 0.68 (3.08) 0.72 (3.26) 0.76 (3.44)

109.14.1 The first day of each month (excluding Saturdays, Sundays, and holidays) in which the project is bid will be used to establish the "Starting Fuel Index" for the duration of the project. The "Starting Fuel Index" will be the average of the values given for No. 2 fuel as reported by Platt's Oilgram - PAD 2 - St. Louis Area.

109.14.2 The pay items and unit prices in the contract will not change. The Commission will, on the first day of each month (excluding Saturdays, Sundays and holidays), determine the "Monthly Fuel Index" of No. 2 fuel from the price index as reported by Platt's Oilgram - PAD 2 - St. Louis Area, which will apply to all payment estimates during that month regardless of the type fuel used.

109.14.3 The quantities of completed work for the payment period will be determined by the engineer and included in the payment estimate. These same quantities will be used to determine the fuel usage for any price adjustment.

109.14.4 The difference (±) between the "Monthly Fuel Index" and the "Starting Fuel Index" will be the "Monthly Fuel Index Adjustment Factor". Adjustments will be made for any change in the ratio of the "Monthly Fuel Index" to the "Starting Fuel Index". This "Monthly Fuel Index Adjustment Factor", along with the "Fuel Usage Factor" and quantities of

completed work for which payment is made will determine the fuel adjustment payment or deduction.

109.14.5 If adjustments are made in the contract quantities, the contractor shall accept the fuel adjustment as full compensation for increases or decreases in the price of fuel regardless of the amounts of overrun or underrun.

109.14.6 The fuel adjustment will be computed each pay period work is performed, for the usage of fuel by the following procedure:

Fuel Adjustment = (Fuel Usage Factor) x (Monthly Fuel Index Adjustment Factor)
x (Units of Work included in the payment estimate)

109.14.7 Payments or deductions for the fuel adjustments on the various items of work will be made on the estimate as one "Fuel Adjustment". No change order will be required.

109.14.8 If the bidder wishes to be bound by these specifications, the bidder shall execute the acceptance form in the proposal. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the price adjustment for fuel.

109.15 Fixed Cost Items. The following fixed prices shall be used when referenced in the specifications:

Sec	Item No.	Item of Work	Unit	Fixed Price
201.4.3	201-30.00	Clearing and Grubbing	Acre	$3,500.00
	201-30.10	Clearing and Grubbing	Ha	$8,500.00
203.9.4	**≤500 cy (380 m^3)**			
	203-20.00	Class C Excavation	cy	$15.00
	203-20.05	Class C Excavation	m^3	$19.60
	>500 cy (380 m^3) but < 2000 cy (1530 m^3)			
	203-20.00	Class C Excavation	cy	$10.00
	203-20.05	Class C Excavation	m^3	$13.10
	≥ 2000 cy (1530 m^3)			
	203-20.00	Class C Excavation	cy	$ 8.00
	203-20.05	Class C Excavation	m^3	$10.50
206.6.2	206-36.00	Supplemental Foundation Test Holes	ft	$ 6.00
	206-36.05	Supplemental Foundation Test Holes	m	$ 19.70
206.6.3.1	206-10.03	Class 1 Excavation in Rock	cy	$100.00
	206-10.07	Class 1 Excavation in Rock	m^3	$130.00
206.6.3.2	206-20.03	Class 2 Excavation in Rock	cy	$150.00
	206-20.07	Class 2 Excavation in Rock	m^3	$195.00
206.6.3.3	206-31.00	Class 3 Excavation in Rock	cy	$ 65.00
	206-32.00	Class 3 Excavation in Rock	m^3	$ 85.00
206.6.3.4	206-34.00	Class 4 Excavation in Rock	cy	$65.00
	206-34.05	Class 4 Excavation in Rock	m^3	$85.00
214.5.1.2	214-20.00	Furnishing Rock Fill	cy	$ 15.00
	214-20.05	Furnishing Rock Fill	m^3	$ 19.60
303.5.1.2	303-06.00	Furnishing Rock Base Material	sy	$ 3.00
	303-06.05	Furnishing Rock Base Material	m^2	$ 3.60
401.14	401-05.00	Sample of Compacted Plant Mix Bituminous Pavement	Each	$ 75.00
403.23.2	403-05.00	Sample of Compacted Asphaltic Concrete Pavement	Each	$ 75.00
611.30.5.1	611-30.10	Furnishing Type 1 Rock Blanket	cy	$19.60
	611-30.15	Furnishing Type 1 Rock Blanket	m^3	$26.40
	611-30.20	Furnishing Type 2 Rock Blanket	cy	$17.80
	611-30.25	Furnishing Type 2 Rock Blanket	m^3	$22.60
703.5.1	**Concrete Fill > 2 cy (> 2 m^3)**			
	703-20.02	Class B Concrete (Misc)	cy	$200.00
	703-20.13	Class B Concrete (Misc)	m^3	$250.00
703.5.1	**Concrete Fill < 2 cy (< 2 m^3)**			
	703-20.02	Class B Concrete (Misc)	cy	$500.00
	703-20.13	Class B Concrete (Misc)	m^3	$650.00

SECTION 110

STATE AND FEDERAL WAGE RATES AND OTHER REQUIREMENTS

110.1 Wage Rates. The contractor will be required to pay either the state or federal prevailing hourly wage rate for any craft or type of worker required to perform the work, except when expressly provided by the contract documents. State wage rates, information on the required federal aid provisions, and the current federal wage rates are available on MoDOT's web site. Applicable federal wage rates will be posted on MoDOT's web site ten days before the bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that the documents applicable to the contract are in the bidder's possession and have been reviewed and used by the bidder in the preparation of any bid submitted on a project.

110.2 Federal-Aid Projects. If the federal government is participating in the cost of construction of the project, all applicable federal laws, and the regulations made pursuant to such laws, will be applicable to and become part of the contract, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate federal agency in accordance with Sec 105.10. Contracts with federal-aid will require payment of the prevailing hourly wage rate for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations, and will require adherence to a schedule of minimum wages as determined by the U.S. Department of Labor. For work performed anywhere on the project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates.

110.3 Prevailing Wages and Records. The prevailing state wage rate, overtime and fringe benefits for the locality of the work as determined by the Missouri Department of Labor and Industrial Relations, or by a court decision on appeal, will be contained in the contract. The effective date for the current wage rate, overtime and fringe benefits, for bidding purposes, will be in the bid documents by special provision. The contractor and all subcontractors shall pay no less than the prevailing wage rate, overtime and fringe benefits as specified or as same may be changed by a court decision on appeal, for all work performed under the contract.

110.3.1 The contractor is advised that the prevailing wage rate, overtime and fringe benefits are subject to change during the life of the contract by court decision. No such change shall be the basis for adjustment in the contract price.

110.3.2 The contractor and each subcontractor shall keep an accurate record showing the names and occupation of all workers employed by the contractor, including the actual wages, overtime and fringe benefits paid to each worker. The record shall be open to inspection at all reasonable hours by the representatives of the Department of Labor and Industrial Relations of Missouri or the Commission. The contractor shall submit certified copies of payrolls to the engineer each week.

110.4 Work Performed in Adjoining States. When a project requires work to be performed in both the State of Missouri and a bordering state, the contractor will be required to pay the applicable prevailing hourly rate of wage for the site of the work. The contractor shall determine which rates are applicable, and shall pay the greater of any conflicting wage rates. Additional information on obtaining wage rates and federal wage rates for the bordering state will be contained in the contract.

SECTION 202

REMOVAL OF ROADWAYS AND BUILDINGS

202.1 Description. This work shall consist of the removal and disposal of all existing improvements from the right of way and within the limits of any construction area outside the right of way, except improvements designated or permitted to remain in place or to be removed under other items of work. These specifications will apply to all removal work performed by the contractor.

202.2 General Requirements.

202.2.1 Disposal of Material. All improvements not designated to remain shall be removed or disposed of by the contractor as required. The work may involve the generation of excess material, which may be solid waste under the definitions of the MDNR Solid Waste Management Program. The contractor shall dispose of solid waste in accordance with the Missouri Solid Waste Management Law and implementing regulations, 10 CSR 80.

202.2.1.1 Regulated solid waste, including waste tires, shall be handled, transported and disposed of in accordance with applicable regulations. Documentary proof of proper transport and disposal of this waste, including transport forms, disposal forms, scale tickets, cancelled checks and receipts, shall be provided to MDNR and to the engineer prior to acceptance of the work.

202.2.1.2 Material designated for use elsewhere shall not be removed from the project. Open burning of material shall be conducted in accordance with Sec 201.2.5.1. Uncontaminated underground storage facilities not requiring removal shall be dewatered, filled with sand or grout to within one foot (300 mm) of the top of the facility, and crushed.

202.2.2 Damaged Items. Any item damaged by the contractor's operations that is designated to remain in place, to be used elsewhere, or to be used by the public or an adjoining property owner, shall be repaired or replaced at the contractor's expense, in a manner satisfactory to the engineer in accordance with Sec 107.12.

202.2.3 Dust and Emissions Control. All operations during demolition and removal shall be adequately controlled to prevent dust and visible emissions, unless otherwise approved by the engineer. All measures taken shall be provided by the contractor at the contractor's expense unless specified otherwise.

202.2.4 Salvage. All material designated in the contract to be salvaged for Commission use from existing structures or improvements shall be removed without damage, in sections that may be readily handled, transported and stored as approved by the engineer. Unless otherwise designated in the contract, coldmilled material shall remain the property of the contractor. Guardrail material will remain the property of the Commission and stockpiled as specified in the contract or as directed by the engineer. All buildings, material and equipment of any description not designated for salvage by the Commission shall become the property of the contractor, unless owned and claimed by a political subdivision or utility company. Salvaged material becoming the property of the contractor shall not be stored on the right of way, or shall any portion of the right of way or land owned by the Commission be used by the contractor as a place of sale for salvaged material.

202.3 Construction Requirements.

202.3.1 Disposal of Material.

202.3.1.1 Clean fill, including uncontaminated soil, rock, sand, gravel, concrete, minimal amounts of wood, metal and inert solids, as approved by rule or policy by MDNR's Solid Waste Management Program, will not be regulated. These materials will not be considered solid waste, and may be disposed of without prior approval from MDNR's Solid Waste Management Program.

202.3.1.2 Material that is not clean fill by definition shall be disposed of in accordance with MDNR's or local regulations, and the contractor shall provide appropriate documentation, i.e. landfill receipts or a private owner waiver letter or statement from MDNR, that the disposal complies with applicable laws or regulations.

202.3.2 Removal Requirements. Removal of pavement, curb, gutter, sidewalk and other similar improvements, and where a portion of such improvements are to be left in place, shall be to an existing joint or to a joint sawed full depth. Sufficient removal shall be made to provide for proper grades and connections in the new work regardless of removal limits shown on the plans.

202.3.2.1 Removal of concrete or bituminous material shall consist of breaking up and disposing of the material in areas furnished at the contractor's expense, within a basement excavation where approved backfill material over 24 inches (600 mm) deep is to be placed over such broken material, or within embankments where new embankment over 24 inches (600 mm) is to be placed over the broken material. If concrete or bituminous slabs are to be left within an embankment or basement, the slabs shall be broken into pieces not exceeding 4 square feet (0.4 m^2). At locations shown on the plans where piling is to be driven, existing pavement, sidewalks, footings, foundations, walls and all other types of removal items shall be completely removed for a sufficient distance to permit piles to be driven. Existing improvements not removed in their entirety shall be removed to a minimum depth of 12 inches (300 mm) below the finished grade section or natural ground. All reinforcing steel extending from concrete shall be removed to the exposed face prior to placement within water or on exposed ground surfaces.

202.3.2.2 The contractor shall remove slabs on grade more than 6 inches (150 mm) higher than existing street or alley grades or surrounding low grades. All other aboveground concrete and masonry improvements, fences, posts and other structures on the parcel shall be removed to adjacent surface grades. For any location on the plans designated as a bridge site, the contractor shall remove all basement and foundation walls, footings, floors, and any other incidental masonry construction prior to backfilling. All material from such removals meeting the requirements of clean fill shall be disposed of as directed by the engineer. All other material shall be disposed of off site at the contractor's expense.

202.3.2.3 All sidewalk slabs over basements, areaways, and all beams, fixtures and supports shall be removed except slabs that are part of the public sidewalks adjacent to structures being demolished. The contractor shall not remove coal hole covers, trap doors, sidewalk doors, gratings and similar appurtenances that occur in the public sidewalk adjacent to buildings being demolished.

202.3.2.4 The contractor shall leave in place any walls or structures that retain adjacent property to ensure lateral support to that property. Any wall perpendicular to and connected to the said wall or structure shall remain in place and connected to the wall for a distance at least

one-half the height of the wall. The slope of the top of the perpendicular wall shall be 1:2 (2:1) or flatter, sloping downward from the top of the wall or structure.

202.3.3 Sewers and Drains. All sewers, drainage pipes and floor drains that have been or are to be abandoned shall be permanently sealed at the ends with a minimum 8-inch (200 mm) thick bulkhead constructed of Class B concrete, a commercial mix concrete in accordance with Sec 501.15 or brick masonry. The use of salvaged brick will be permitted for constructing bulkheads, provided the brick is clean and sound.

202.3.2 Backfill. All trenches, holes and pits resulting from the removal of improvements, contaminated material, soil, tanks and piping shall be backfilled and graded to shape and finish disturbed areas. Backfilling shall be performed in accordance with applicable portions of Sec 203 and compacted in accordance with Sec 203.5 unless otherwise designated by the engineer. Material shall be placed in the same manner and compacted to the same density required in adjoining areas and shall be done in such a manner as to ensure proper drainage.

202.3.4.1 Backfill material may consist of previously stockpiled uncontaminated soil or may be obtained from the right of way if approved by the engineer. Only approved material free of trees, stumps, rubbish and any other deleterious material shall be used in the construction of backfills. Rock, broken concrete or other solid material shall not be placed in bridge fill areas. No slope shall be steeper than 2:1 (1:2). Broken masonry resulting from demolition of buildings or other improvements on the parcel may be used for backfill provided the masonry meets the requirements of clean fill. In no case shall broken masonry extend closer than 12 inches (300 mm) to the finished surface. In the event there is insufficient material in the immediate vicinity, the contractor shall provide material, at the contractor's expense, from a source obtained by the contractor and approved by the engineer in accordance with Sec 106.

202.3.4.2 All trees, shrubs or other vegetation within the limits of the contractor's backfilling operations shall be removed and disposed of in accordance with Sec 201.

202.3.5 Hazardous Material.

202.3.5.1 The contractor may encounter small quantities of hazardous material as defined by MDNR. This material shall be recycled or disposed of in a manner that maintains the material's qualifications as "small quantities" in accordance with MDNR regulations.

202.3.5.2 In the event the contractor encounters what is reasonably suspected to be large quantities of hazardous material, the contractor shall immediately cease work and notify the engineer in accordance with the contract requirements. If the engineer determines the suspect material is not hazardous or does not constitute a large quantity of hazardous material, the contractor will be notified to continue the work. If the engineer determines the suspect material is hazardous or constitutes a large quantity of hazardous material, the engineer may require the contractor to perform work necessary to abate the hazardous material.

202.4 Basis of Payment The accepted removal of improvements will be paid for at the contract lump sum price. If no lump sum unit for the removal of improvements is included in the contract, the removal of improvements required to complete the contract, or as directed by the engineer, will be considered incidental to the work and no direct payment for the removal will be made. If additional removals are encountered as described in Sec 202.30, payment will be accordance with Sec 104.3.

202.4.1 No direct payment will be made for the following work:

(a) Removal and disposal of abandoned fences and mailboxes.

(b) Sealing abandoned sewers, drainage pipes or floor drains.

(c) Removal and disposal of small quantities of hazardous material.

202.4.2 Payment for any additional work required for hazardous material abatement will be handled in accordance with Sec 104.3.

SECTION 202.10 PLUGGING AND CLOSURE OF WELLS

202.10.1 Description. This work shall consist of plugging and closing wells as shown on the plans or as directed by the engineer.

202.10.2 Conformance Requirements. The contractor shall notify the engineer at least 24 hours in advance of the contractor's intent to plug the well. The contractor shall be in possession of a valid MDNR permit for well or pump installation. The abandonment procedure for wells shall be in accordance with requirements in specific MDNR regulations for monitoring wells, heat pump wells, test holes or all other wells, as applicable. A copy of the completed closed well registration shall be furnished to the engineer.

202.10.3 Basis of Payment. The accepted quantity of plugged and closed wells will be paid for at the contract unit price per each. Payment will be considered full compensation for all labor, equipment and material for plugging and closing, and the costs and fees associated with closed well registration.

SECTION 202.20 SEPTIC TANK PLUGGING AND DISPOSAL

202.20.1 Description. This work shall consist of plugging and disposing of septic tanks shown on the plans or as directed by the engineer.

202.20.2 Conformance Requirements. The contractor shall notify the engineer at least 24 hours in advance of the contractor's intent to plug and dispose of the septic tank. Septic tanks shall be abandoned by pumping the septic tank, collapsing the top of the tank, plugging incoming and outgoing laterals, and breaking the bottom to permit drainage. The tank trench shall be backfilled with coarse gravel or rock, agricultural lime, or sand to a depth of 2 feet (600 mm) below the existing ground surface. The top 2 feet (600 mm) shall be backfilled with soil from the parcel and compacted in 6-inch (150 mm) lifts to the approximate density of the adjacent soil. In the event there is insufficient material in the immediate vicinity, the contractor shall provide material meeting the approval of the engineer, at the contractor's expense. All material pumped from septic tanks shall be properly disposed of at a permitted sewage treatment facility or other location approved by the engineer.

202.20.3 Basis of Payment. The accepted quantity of septic tanks, plugged and disposed of, will be paid for at the contract unit price per each. Payment will be considered full compensation for disposal of tank contents, permits, labor, equipment and material to complete the described work.

SECTION 202.30 REMOVAL OF IMPROVEMENTS FOR ROADWAY CONTRACTS

202.30.1 Description. This work shall consist of removing and disposing of all existing improvements for roadway contracts from the right of way and within the limits of any construction easement outside the right of way, except improvements designated to remain in place or to be removed under other items of work.

202.30.1.1 Removal of improvements shall include removing all drainage structures, pavement, surfacing and base courses, curb, gutter, sidewalks, house walks, steps, retaining walls, foundation walls, columns, footings, concrete floors, cisterns, catch basins, uncontaminated storage tanks, manholes, drainage and sewer pipes, water and gas main pipes, signs, fences, scattered or piled bricks, stones, broken masonry, rubbish, debris, outdoor advertising signs, etc., from existing improvements.

202.30.1.2 The plans may not show a complete list of all items to be removed. There may be an undetermined number of abandoned utilities, basement or foundation walls, columns, footings or other improvements encountered. The contractor shall determine the extent of the work to be performed under this item.

202.30.2 Method of Measurement. This work will not be measured for payment, but will be considered a lump sum unit. The work will include the removal of all items, regardless of whether the items are shown on the plans or encountered during construction, unless the presence of the improvement encountered could not have been determined by a visual inspection prior to bidding. No deductions will be made from the quantities measured for payment of excavation where existing improvements are removed from within the limits of the sections measured for determining pay quantities of excavation.

202.30.3 Basis of Payment. Accepted removal of improvements will be paid for at the contract lump sum price. If no lump sum unit for the removal of improvements is included in the contract, the removal of improvements required to complete the contract, or as directed by the engineer, will be considered incidental to the work and no direct payment for the removal will be made. If additional removals are encountered as described in Sec 202.30.2, payment will be made in accordance with Sec 104.3.

SECTION 202.40 DEMOLITION AND REMOVAL OF BUILDINGS

202.40.1 Description. This work shall consist of demolishing, removing and disposing of all existing buildings from the right of way or within the limits of any construction easement outside the right of way as shown on the plans. Removal of buildings shall include all attached structures, existing rubbish, trash and contents in and adjacent to the building on each parcel.

202.40.1.1 Notification of Demolition. The contractor shall provide proper notification to all appropriate federal, state and local agencies prior to demolition. Notification is necessary for the demolition of a building regardless of whether asbestos is present. The notification procedures and forms are available from MDNR. The contractor shall provide copies of all completed and approved forms to the engineer prior to any demolition work.

202.40.2 Schedule. The contractor shall submit a plan and schedule for demolition and removal of any designated improvements, asbestos containing material (ACM), buildings, contaminated material, and storage tanks on the parcel. Prior to the start of removals, the contractor shall obtain approval from the engineer for all schedules and plans. The work shall be performed in accordance with the approved plan and schedule unless otherwise approved by the engineer. The contractor shall complete all demolition, removal and disposal of buildings, other than ACM removal, within seven days after starting work on the building, unless otherwise approved by the engineer.

202.40.3 Demolition and Removal General Requirements.

202.40.3.1 Backfilling. Backfilling operations for residential basements shall be completed within four days after residential buildings are removed. Backfilling operations for

commercial basements shall be completed within 14 days after commercial buildings are removed in accordance with the demolition and removal work schedule required in Sec 202.40.2.

202.40.3.2 Site Maintenance. All parcels included with each notice to remove shall be maintained by the contractor and kept in a safe and clean condition until acceptance of the work by the engineer. All access to the interior of buildings located on a parcel for which a notice to remove has been issued shall be closed up and secured or otherwise covered such that the public cannot enter the buildings.

202.40.3.3 Utilities. Before beginning demolition, the contractor shall arrange for the disconnection of utilities to buildings to be demolished in accordance with the regulations of the utility concerned. The contractor shall take measures to prevent any material from entering storm and sanitary sewers. In the event that utility service lines are disrupted and utility service is needed, the contractor shall provide adequate substitute utility service, at the contractor's expense.

202.40.3.4 Site Security. Before starting demolition for each parcel, the contractor shall provide adequate security around buildings to be demolished to protect the public and workers from operating equipment and falling debris, and to block access to any situation that constitutes a hazard to the public

202.40.4 Removal of Asbestos Containing Material. Unless designated otherwise, the Commission will test all buildings or structures to be removed for ACM. Testing of buildings will be limited to ACM. Buildings will not be tested for other substances. The Commission disclaims any representation that the buildings are hazard-free. If ACM is present in a building or structure, the ACM shall be removed and disposed of by the contractor accordance with the contract documents. All regulated asbestos containing material (RACM), as defined in Sec 202.40.4.5, and Category I nonfriable ACM on concrete shall be removed from the buildings prior to demolition or salvage. Category II nonfriable ACM that does not have a high probability of becoming crumbled, pulverized or reduced to powder in the course of demolition, and Category I nonfriable ACM, except floor tile or sheeting on concrete, may remain in the building during demolition. All building demolition material, including the Category II nonfriable ACM and Category I nonfriable ACM, shall be disposed of in a licensed landfill. The contractor shall not crumble, pulverize or reduce to powder Category II nonfriable ACM and shall not cut, grind, sand, abrade or render the Category I nonfriable ACM friable during demolition and transportation to the licensed landfill. If the contractor elects to remove and dispose of Category II nonfriable ACM and Category I nonfriable ACM prior to demolition, disposal shall be performed properly and at the contractor's expense.

202.40.4.1 Asbestos Identification and Testing. Suspect ACM will be sampled and tested. The results of the testing for friable and nonfriable ACM requiring removal will be made available to the contractor or included within the contract documents. For those buildings with unknown quantities at the time of award, results of testing for friable and nonfriable ACM requiring removal will be provided with the notice to remove.

202.40.4.2 Licensing and Permits. The contractor performing friable asbestos abatement in accordance with the regulations shall be registered with MDNR and certified as an asbestos contractor with the agency. Before beginning work on any parcel, the contractor shall provide the engineer with copies of all permits, licenses and certifications in accordance with local, state, or federal agencies.

202.40.4.3 Notification and Reporting. The contractor shall provide all information regarding asbestos abatement to the EPA, OSHA, MDNR and local agencies in accordance with applicable regulations concerning asbestos removal work. Notification shall be provided

by the contractor to all applicable regulating agencies for all asbestos removal before removal and demolition begins. The contractor shall obtain any necessary authorization for the work from all applicable federal, state and local agencies. The contractor shall provide copies of all reports and authorization information to the engineer prior to beginning work on the project.

202.40.4.4 On-Site Supervisor. The contractor shall provide a trained supervisor to remain on site during all ACM removal work in accordance with EPA regulations. The contractor shall provide evidence of the supervisor's training to the engineer before any work begins.

202.40.4.5 Regulated Asbestos Containing Material and Category I Nonfriable Asbestos Containing Material on Concrete. The contractor shall remove, transfer and dispose of RACM and Category I nonfriable ACM (floor tile and sheeting on concrete) specified in the contract. The following material will be considered RACM:

(a) Friable asbestos material.

(b) Category I nonfriable ACM that has become friable.

(c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading.

(d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of demolition.

202.40.4.6 Unidentified Asbestos. If the contractor encounters suspect ACM not previously identified in the contract, the contractor shall immediately notify the engineer in accordance with the contract requirements. The engineer will have the suspect material sampled and tested, and the contractor shall not remove the additional suspect ACM until directed by the engineer.

202.40.4.7 No Salvage Permitted. No salvage of items containing asbestos material will be permitted.

202.40.4.8 Airborne Asbestos Particle Testing. The contractor shall monitor and test for airborne asbestos particles during working hours within the area of the property or fence line. The contractor shall conduct operations to keep airborne particles beyond this area within the established regulation limits. The contractor shall furnish the engineer copies of correspondence, test results, recommendations and other information to document contractor's compliance with the following requirements:

(a) When asbestos removal is completed, all work shall be inspected by the contractor for the presence of asbestos debris. Removal and cleaning shall continue until air monitoring clearance testing indicates the level of airborne fibers meets required levels. The engineer shall be notified when sampling is started. The contractor shall provide documentation to the engineer within 24 hours after the sampling has been completed that the level of airborne fibers meets required levels.

(b) For asbestos abatement projects requiring third party air monitoring as determined by the engineer, the contractor shall cooperate and coordinate with the engineer and the third party air sampler designated by the engineer to perform the third party air sampling. The contractor shall provide to the engineer a minimum of 48 hours notice of the time when the services of the third party air sampler will be required as a result of the contractor's work. The contractor shall arrange work so as not to interfere with the third party air sampler's ability to conduct the necessary air sampling. The contractor and the third party

air sampler shall work cooperatively with the engineer in a sequence such that air sampling shall be conducted in a proper and timely manner by the third party air sampler with minimal interruption to any other party.

202.40.4. 9 Disposal. All RACM and Category I nonfriable ACM shall be disposed of within seven days of removal from the building or structure. All RACM and ACM shall be disposed in accordance with applicable EPA, OSHA, MDNR and local agencies' regulations.

202.40.4.9.1 The contractor shall identify or mark hauling vehicles used to transport asbestos waste during loading, transporting and unloading in accordance with applicable regulations for transporting asbestos waste. The waste shall be transported in enclosed roll-offs or dumpsters, vehicles that have completely enclosed cargo areas, or a four-sided cargo area that shall be completely covered with two layers of 6-mil (0.15 mm) thick plastic sheeting or equivalent covering while the waste is being transported.

202.40.4.9.2 The contractor shall provide a Waste Shipment Record to the waste site owner or operator at the time the waste is delivered to the waste disposal site. A copy of the Waste Shipment Record shall be provided to the engineer.

202.40.5 Removal of Buildings. Removal of buildings shall include all attached structures. Under no circumstances shall the contractor burn, grind, pulverize or otherwise reduce any portion of the building into fine particles without prior approval from the engineer. Any buildings or portion thereof located on the parcel may be removed intact or substantially intact subject to the contractor's adherence to the following conditions:

(a) The contractor shall declare, in writing, the intention to move any building or substantial portion thereof to any other location. Such declarations shall be made within 30 days of the issuance of the notice to remove for the building. The contractor shall submit a separate declaration for each building.

(b) The name of the house mover or house moving company shall be included in the declaration. The engineer reserves the right to disapprove a house mover or house moving company with no prior performance record or based on unsatisfactory performance on previous moving jobs. Conditional approval may be given at the discretion of the engineer for previously disapproved house movers or house moving companies for one building at a time.

(c) No building or portion thereof shall be removed from the parcel until the contractor has received written approval from the engineer and other authority having jurisdiction over the area involved in the total move by issuance of the proper permits.

(d) The contractor shall commence the removal of buildings promptly. Buildings removed shall not be placed on other portions of state right of way for storage or for any other purpose, except as specifically allowed by issuance of an overdimension permit from the Commission

(e) Interim storage of buildings for resale or any other purpose will be limited to areas where zoning allows for such storage. No public lands or right of way shall be used unless a permit is granted by the responsible agency.

(f) The contractor shall remove all components of the building to the foundation level, including those components suspended from the main level subfloor structure. The primary components of the building shall be removed intact as a whole structure. The contractor will not be paid for ACM removal from these structures unless required from the disturbance of the foundation or on the remaining foundation components after building removal, as determined by the engineer.

202.40.5.1 Demolition of Walls. All exterior walls shall be removed to the level of existing adjacent ground, streets, alleys or sidewalks. Interior walls shall be removed to the level of existing basement floors.

202.40.5.1.1 Where joint or party walls exist between two buildings that are not being demolished at the same time, the part of wall or walls serving both buildings shall be removed with the demolition of the last structure. No demolition work shall damage or weaken walls or portions of walls serving adjacent buildings.

202.40.5.1.2 Remaining portions of party walls shall be left in sound condition with demolition terminating in neat vertical and horizontal lines. Care shall be taken to ensure demolition without damage to roofs or other parts of adjoining buildings.

202.40.5.2 Removal of Flooring. Floor construction over basements, sub-basements or cellars, and all other floors regardless of elevation, shall be removed. All existing wood and other material attached to concrete and masonry construction shall be removed.

202.40.5.3 Disposal of Debris. The contractor shall remove any debris resulting from demolition as work progresses and dispose of the material in a licensed landfill.

202.40.5.4 Cooling Systems. Buildings to be demolished may have various cooling systems that contain freon or other refrigerants. The contractor shall identify the type of refrigerant present in each system and properly recover the refrigerant prior to salvage or demolition of the cooling systems.

202.40.6 Removal of Appurtenances. Removal and disposal shall include all existing building appurtenances on each parcel in the demolition and removal contracts from the right of way and within the limits of any construction easement outside the right of way, except those items designated to remain in place or to be removed under other items of work.

202.40.6.1 All elevated sidewalks, steps, retaining walls, basement and foundation walls, columns, footings, concrete floors, cisterns, catch basins, uncontaminated storage tanks, manholes, signs, fences, bricks, stones, broken masonry, rubbish, debris and any other items not covered elsewhere in Sec 202 will be considered building appurtenances.

202.40.6.2 The plans may not show a complete list of all items to be removed. There may be an undetermined number of basement or foundation walls, columns, footings or other improvements encountered. The contractor shall determine the extent of the work to be performed under this item.

202.40.7 Method of Measurement.

202.40.7.1 Final measurement of removal for ACM will be made to the nearest square foot (0.1 m^2) or linear foot (0.5 m) based on the asbestos survey test report.

202.40.7.2 Measurement for demolition and removal of buildings and appurtenances will be considered a lump sum unit per parcel.

202.40.8 Basis of Payment.

202.40.8.1 Payment for removal of ACM will be made for field-measured quantities as approved by the engineer at the contract unit price. If additional suspect material tests positive for the presence of asbestos, payment will be made per the contract unit price. No direct payment will be made for recovering refrigerant.

202.40.8.2 Payment for demolition and removal of buildings and appurtenances will be made at the contract lump sum unit price per parcel.

SECTION 202.50 REMOVAL OF CONTAMINATED MATERIAL AND STORAGE TANKS

202.50.1 Description. This work shall consist of removing and disposing of designated residual material, pavement, pump islands, all storage tanks and piping; excavation and disposal of uncontaminated and contaminated soil as required; obtaining the necessary regulatory permits; backfilling the excavated areas with uncontaminated soil after clean up levels have been achieved; and any incidental work or material required to complete the job.

202.50.2 Schedule. The contractor shall submit a plan and schedule for demolition and removal of any designated storage tanks on the parcel and shall obtain the engineer's approval prior to starting work. The work shall be performed in accordance with the approved plan and schedule unless otherwise approved by the engineer.

202.50.3 Removal Requirements.

202.50.3.1 Site Inspection. The contractor shall inspect and become familiar with the proposed work site, conditions and circumstances.

202.50.3.2 Conformance Requirements. Work shall be performed in accordance with industry recommended practices, including the American Petroleum Institute (API) Recommended Practices, and MDNR Underground Storage Tanks (UST) Closure Guidance (Closure Guidance).

202.50.3.3 Groundwater Monitoring Wells. The contractor shall protect all existing groundwater monitoring wells located within the area of underground storage tanks from damage and contamination, except for wells in an area of contaminated soil removal.

202.50.3.4 Tank Vapor Levels. Vapor levels in each tank shall be checked for explosive potential prior to removing the tank or piping. Non-sparking tools shall be used for gaining access to the tank atmosphere in order to measure the vapor level. If the explosive level is above 20 percent of the lower explosive limit, flammable vapors shall be removed in accordance with methods outlined by API Recommended Practices until the 20 percent level is reached. The contractor shall purge vapors from a vent pipe. Gasoline tanks shall not be purged during adverse weather conditions where vapors could accumulate at ground level and cause a public health or fire hazard.

202.50.3.5 Tank Dewatering and Removal. The contractor shall notify the engineer prior dewatering and removing storage tanks.

202.50.3.6 Residual Material. The contractor shall remove and dispose of all residual material in the tanks or drums on the site identified as being a regulated quantity of hazardous waste material. All product, sludge, and water in contact with the interior of a petroleum UST will be presumed to be hazardous waste, unless sample test results reporting the requirements of the Toxicity Characteristic Final Rule prove otherwise. Hazardous waste material shall be transported by a hazardous waste transporter licensed in the State of Missouri and manifested as hazardous waste to a Resource Conservation and Recovery Act (RCRA) treatment, storage or disposal facility. The generator's copy of the manifest shall be submitted to the engineer. The material in tanks or drums identified as being non-hazardous shall be managed properly.

202.50.3.7 Tank Pit Surface Water. Tank pits on the site may contain contaminated surface water or groundwater. The contractor shall remove, transport and dispose of all contaminated water from the tank pit at an appropriate treatment, storage or disposal facility.

202.50.3.8 Soil Excavation. Soil excavation shall be performed by the contractor to segregate contaminated soil from uncontaminated soil. Contaminated soil shall be excavated to the limits directed by the engineer. The contractor shall use calibrated field instrumentation approved by the engineer to evaluate approximate levels of contamination remaining in the unexcavated soil.

202.50.3.9 Hauling and Disposal of Contaminated Soil. Contaminated soil shall be hauled from the site and disposed of in a licensed landfill, or as directed by the engineer. Disposal of contaminated soil shall be in accordance with the Closure Guidance. The contractor shall provide the engineer with a copy of a completed MDNR form entitled *Disposal of Soil Contaminated With Virgin Gasoline or Virgin Fuel Oil.*

202.50.3.10 Use of Uncontaminated Soil. Uncontaminated soil may be reused as backfill at locations approved by the engineer.

202.50.3.11 Water Accumulated in Excavation. If stormwater accumulates in the excavated area and requires removal prior to backfilling, the contractor shall obtain an MDNR storm water discharge permit or approval to discharge accumulated water into a sewer system. Disposal of water removed from the excavated area will be at the contractor's expense.

202.50.3.12 Sample Analysis. The contractor's work will be regulated as follows:

(a) The contractor shall sample and analyze residual material, tank pit surface water or groundwater, and any stormwater that accumulates in the excavated area as necessary for proper disposal.

(b) The contractor shall provide the engineer with the name, location and testing requirements of the disposal facility for the contaminated material.

(c) The engineer will sample and analyze all soil prior to disposal; prior to beneficial reuse if beneficial reuse is designated in the contract; and prior to backfilling. Sampling and analysis will be done in accordance with the Closure Guidance and requirements of the Missouri Petroleum Storage Tank Insurance Fund.

(d) The engineer will obtain samples beneath the tank, down-gradient and around pumps and lines in accordance with the Closure Guidance.

(e) The engineer will determine if remaining soil requires excavation and when clean up levels have been achieved.

202.50.3.13 Backfill. The contractor shall not begin backfilling operations until directed by the engineer.

202.50.3.14 Closure Report. The contractor shall provide copies of all necessary documentation for tank cleaning and disposal, and soil, sludge and wastewater disposal to the engineer. Documentation shall be in accordance with the Closure Guidance and the Missouri Petroleum Storage Tank Insurance Fund. The engineer will prepare the underground storage tank closure report in accordance with the Closure Guidance.

202.50.4 Method of Measurement. Measurement of tank removal and disposal will be made per each; residual hazardous material removal and disposal will be measured per gallon (L);

tank pit surface water removal and disposal will be measured per 10 gallons (50 L); and hauling and disposing of contaminated soil will be measured per ton (Mg) based on landfill weight tickets. Measurement of excavation and backfill will be made to the nearest cubic yard (m^3), measured from the actual excavation limits to the existing surrounding ground line. A deduction equal to the volume of the tanks removed will be made from the volume measured for payment of contaminated soil excavation when existing tanks are removed from within the limits of the sections measured for determining pay volumes of excavation.

202.50.5 Basis of Payment.

202.50.5.1 The accepted quantities for removal and disposal of storage tanks will be paid for at the contract unit price per each.

202.50.5.2 The accepted quantity of hazardous residual material will be paid for at the contract unit price. Payment will be considered full compensation for sampling and analysis, removal of the material, appropriate containerization and labeling, transportation and treatment or disposal. Payment will not be made until the engineer receives a Certification of Treatment or Disposal for all material from the RCRA treatment, storage or disposal facility.

202.50.5.3 The accepted quantity of tank pit surface water and groundwater removal and disposal will be paid for at the contract unit price. Payment will be considered full compensation for all sampling and analysis, transportation, disposal fees, and processing of approvals.

202.50.5.4 The accepted quantity for excavation of contaminated soil will be paid for at the contract unit price.

202.50.5.5 The accepted quantity for hauling contaminated soil will be paid for at the contract unit price, based on landfill weight tickets. Payment will be considered full compensation for removal from the site and transportation for treatment or disposal.

202.50.5.6 The accepted quantity for disposal of contaminated soil will be paid for at the contract unit price, based on landfill weight tickets. Payment will be considered full compensation for all landfill fees and processing of landfill approvals.

202.50.5.7 The accepted quantity for backfill will be paid for at the contract unit price and will be considered full compensation for material, transportation and compaction.

SECTION 202.60 INDIVIDUAL WASTEWATER LAGOON CLOSURES

202.60.1 Description. This work shall consist of dewatering, sludge removal or treatment, and grading of individual residential wastewater lagoons as shown on the plans or as directed by the engineer.

202.60.2 Construction Requirements. The contractor shall notify the engineer at least 24 hours in advance of the contractor's intent to dewater by pumping and apply to a vegetated area approved by the engineer at a rate that will not cause runoff. Residual sludge remaining in the lagoon shall be mixed with soil on at least a one to one ratio. Lagoon berms shall be demolished and compacted over the lagoon bottom to the approximate density of the adjacent soil. The contractor shall provide material meeting the approval of the engineer to backfill the lagoon to the surrounding ground surface. Material required to backfill the lagoon will be considered incidental to the work. If material is available in the immediate vicinity of the lagoon, the engineer may authorize using on-site material. Disturbed areas shall be fertilized, seeded and mulched. All material pumped from the lagoon shall be properly disposed of at a sewage treatment facility unless otherwise directed by the engineer.

202.60.3 Method of Measurement. Measurement of individual residential wastewater lagoon closures will be made per each.

202.60.4 Basis of Payment. The accepted quantity of residential wastewater lagoon closures will be paid for at the contract unit price. Payment will be considered full compensation for removal, disposal of lagoon contents, required backfill material, seeding, fertilizing and mulching, permits, labor, equipment and material to complete the described work.