MDOT Use Only
Checked _____
Loaded _____
Keyed _____

SM No. CER9354000021

PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

(NONEXEMPT)

2
Construction necessary to install utilities and upgrade the roadway on Beach Boulevard in Bay St. Louis, known as Federal-Aid Project No. ER-9354-00(002) / 104637301 & State Project No. SP-9354-00(002) / 104637302, in the County of Hancock, State of Mississippi.
Project Completion: December 31, 2009

NOTICE

BIDDERS MUST PURCHASE A BOUND PROPOSAL
FROM MDOT CONTRACT ADMINISTRATION DIVISION
TO BID ON THIS PROJECT.

Electronic addendum updates will be posted on www.goMDOT.com

SECTION 900

OF THE CURRENT
(2004) STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
JACKSON, MISSISSIPPI

BIDDER CHECK LIST
(FOR INFORMATION ONLY)

_____ All unit prices and item totals have been entered in accordance with Subsection 102.06 of the Mississippi Standard Specifications for Road and Bridge Construction.

_____ If the bid sheets were prepared using MDOT's Electronic Bid System, proposal sheets have been stapled and inserted into the proposal package.

_____ First sheet of SECTION 905--PROPOSAL has been completed.

_____ Second sheet of SECTION 905--PROPOSAL has been completed and signed.

_____ Addenda, if any, have been acknowledged. Second sheet of Section 905 listing the addendum number has been substituted for the original second sheet of Section 905. Substituted second sheet of Section 905 has been properly completed, signed, and added to the proposal.

_____ DBE/WBE percentage, when required by contract, has been entered on last sheet of the bid sheets of SECTION 905 - PROPOSAL.

_____ Form OCR-485, when required by contract, has been completed and signed.

_____ The last sheet of the bid sheets of SECTION 905--PROPOSAL has been signed.

_____ Combination Bid Proposal of SECTION 905--PROPOSAL has been completed for each project which is to be considered in combination (See Subsection 102.11).

_____ Equal Opportunity Clause Certification, when included in contract, has been completed and signed.

_____ The Certification regarding Non-Collusion, Debarment and Suspension, etc. has been executed in duplicate.

_____ A certified check, cashier's check or bid bond payable to the State of Mississippi in the principal amount of 5% of the bid has been included with project number identified on same. A bid bond has been signed by the bidder and has also been signed or countersigned by a Mississippi Resident Agent for the Surety with Power of Attorney attached.

_____ Non-resident Bidders: ON STATE FUNDED PROJECTS ONLY, a copy of the current laws regarding any preference for local Contractors from State wherein domiciled has been included. See Subsection 103.01, Mississippi Standard Specifications for Road and Bridge Construction, and Section 31-7-47, MCA, 1972 regarding this matter.

Return the proposal and contract documents in its entirety in a sealed envelope. DO NOT remove any part of the contract documents; exception - an addendum requires substitution of second sheet of Section 905. A stripped proposal is considered as an irregular bid and will be rejected.

Failure to complete any or all of the applicable requirements will be cause for the proposal to be considered irregular.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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OCR-485,
HAUL PERMIT FOR BRIDGES WITH POSTED WEIGHT LIMITS.

(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET OF SECTION 905 AS ADDENDA)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 901 - ADVERTISEMENT

Sealed bids will be received by the Mississippi Transportation Commission in the Office of the Contract Administration Engineer, Room 1013, Mississippi Department of Transportation Administration Building, 401 North West Street, Jackson, Mississippi, until 9:30 o'clock A.M., Tuesday, August 26, 2008; thereafter, bids will be received in the First Floor Auditorium of the Mississippi Department of Transportation Administration Building, Jackson, Mississippi, until 10:00 o'clock A.M., Tuesday, August 26, 2008, and shortly thereafter publicly opened for:

Construction necessary to install utilities and upgrade the roadway on Beach Boulevard in Bay St. Louis, known as Federal-Aid Project No. ER-9354-00(002) / 104637301 & State Project No. SP-9354-00(002) / 104637302, in the County of Hancock, State of Mississippi.

The attention of bidders is directed to the Contract Provisions governing selection and employment of labor. Minimum wage rates have been predetermined by the Secretary of Labor and are subject to Public Law 87-58 1, Work Hours Act of 1962, as set forth in the Contract Provisions.

The Mississippi Department of Transportation hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, religion or national origin in consideration for an award.

The award of this contract will be contingent upon the Contractor satisfying the DBE requirements.

Bid proposals must be acquired from the MDOT Contract Administration Division. These proposal are available at a cost of Ten Dollars ($10.00) per proposal. Specimen proposals are also available at the MDOT Contract Administration Division at a cost of Ten Dollars ($10.00) per proposal, or can be viewed or downloaded at no cost at www.gomdot.com.

Plans may be acquired on a cost per sheet basis from MDOT Plans Print Shop, Room 1100, MDOT Administration Building, 401 North West Street, Jackson, Mississippi, 39201, Telephone (601) 359-7460 or e-mail at plans@mdot.state.ms.us or FAX (601) 359-7461. Plans will be shipped upon receipt of payment.

Bid bond, signed or countersigned by a Mississippi Resident Agent, with Power of Attorney attached or on file with the Contract Administration Engineer of the Department, a Cashier's check or Certified Check for five (5%) percent of bid, payable to STATE OF MISSISSIPPI, must accompany each proposal.

The attention of bidders is directed to the provisions of Subsection 102.07 pertaining to irregular proposals and rejection of bids.

LARRY L. "BUTCH" BROWN
EXECUTIVE DIRECTOR

(FAPWP)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1 **CODE: (IS)**

DATE: 05/03/2004

SUBJECT: Governing Specifications

The current (2004) Edition of the Standard Specifications for Road and Bridge Construction adopted by the Mississippi Transportation Commission is made a part hereof fully and completely as if it were attached hereto, except where superseded by special provisions, or amended by revisions of the Specifications contained herein. Copies of the specification book may be purchased from the MDOT Construction Division.

A reference in any contract document to controlling requirements in another portion of the contract documents shall be understood to apply equally to any revision or amendment thereof included in the contract.

In the event the plans or proposal contain references to the 1990 Edition of the Standard Specifications for Road and Bridge Construction, it is to be understood that such references shall mean the comparable provisions of the 2004 Edition of the Standard Specifications.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 151 **CODE: (IS)**

DATE: 06/18/2004

SUBJECT: Gopher Tortoises

Bidders are hereby advised that the Contractor will be required to make special considerations regarding gopher tortoises on this project. In addition to the normal required documentation associated with borrow pits, the Contractor shall, for each site used to obtain or dispose of materials associated with this project, provide the Engineer with a letter from a qualified biologist certifying that the site was inspected prior to any clearing of vegetation or disposal of project materials and that the site is not inhabited by gopher tortoises, or appropriate avoidance measures have been installed. No individual lacking the proper State or Federal license shall touch or otherwise harass a gopher tortoise.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 342 **CODE: (SP)**

DATE: 11/18/2004

SUBJECT: Open Burning - Restrictions On Ozone Action Days

In response to Mississippi Department of Environmental Quality (MDEQ) concern of the air quality (ground-level ozone) in Desoto, Hancock, Harrison and Jackson Counties, the Department of Transportation agreed to place certain restrictions on open burning of land-clearing debris.

The Contractor is advised that no open burning of land-clearing debris will be permitted to begin during ozone action days as designated by MDEQ. An ozone action day is defined as a 24-hour period when the ozone concentration reaches an unacceptable pre-determined level. Usually, an ozone action day has a duration of one (1) day. It is estimated that 3 to 15 ozone action days could occur from April through October.

During open burning operations, each day the Project Engineer will check the 1, 2, and 3-day ozone forecasts made available by MDEQ on their web site, www.deq.state.ms.us, and will e-mail or FAX the forecasts to the Contractor. The Contractor shall provide the Project Engineer sufficient time to monitor the ozone forecasts prior to commencing any open burning operation. The Contractor can not begin open burning until the forecast for the next three (3) days are non-ozone action days. However, when the Contractor is permitted to begin open burning, that day's burning shall continue regardless of the ozone forecasts when checked the following day. For example, if the Project Engineer on Monday A.M. checks the forecasts and finds that Monday, Tuesday and Wednesday are non-ozone action days, the Contractor may begin open burning. If the Project Engineer checks the forecasts on Tuesday and finds that Wednesday has been designated as an ozone action day, the open burning that was started on Monday may continue, but the Contractor can not begin any new burning until the next 3-day forecasts indicate non-ozone action days.

All the provisions of Subsection 107.22.2 of the Standard Specifications shall apply.

Restrictions as set forth herein will not be a basis for additional time units and/or compensation.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 586 **CODE: (SP)**

DATE: **07/22/2005**

SUBJECT: **Storm Water Discharge Associated with Construction Activity (≥ 5 Acres)**

PROJECT: **ER-9354-00 (002) / 104637301 & 302 -- Hancock County**

A Construction Storm Water General NPDES Permit to discharge storm water associated with construction activity is required.

The Department has acquired Certificate of Permit Coverage MSR-104489 under the Mississippi Department of Environmental Quality's (MDEQ) Storm Water Construction General Permit. Projects issued a certificate of permit coverage are granted permission to discharge treated storm water associated with construction activity into State waters. Copies of said permit, completed Large Construction Notice of Intent (LNOI), and Storm Water Pollution Prevention Plan (SWPPP) are on file with the Department.

Prior to the execution of the contract, the successful bidder shall execute and deliver to the Executive Director an original signed copy of the completed Prime Contractor Certification (Form No. 1).

Failure of the bidder to execute and file the completed Prime Contractor Certification (Form No. 1) shall be just cause for the cancellation of the award.

The executed Prime Contractor Certification (Form No. 1) shall be prima facie evidence that the bidder has examined the permit, is satisfied as to the terms and conditions contained therein, and that the bidder assumes the responsibility for meeting all permit terms and conditions and for performing permit requirements including, but not limited to, the inspection and reporting requirements. For this project, the Contractor shall furnish, set up and read, as needed, an on-site rain gauge.

The Contractor shall make inspections in accordance with condition No. S-4, page 14, and shall furnish the Project Engineer with the results of each weekly inspection as soon as possible following the date of inspection. A copy of the inspection form provided with the packet completed shall be sufficient. The weekly inspections must be documented monthly on the Inspection and Certification Form. The Contractor's representative and the Project Engineer shall jointly review and discuss the results of the inspections so that corrective action can be taken. The Project Engineer shall retain copies of the inspection reports.

An amount equal to 25 percent (25%) of the total estimated value of the work performed during each period in which the Contractor fails to submit monthly the completed Inspection and

Certification Form to the Project Engineer will be withheld from the Contractor's earned work. Thereafter, on subsequent successive estimate periods, the percentage withheld will be increased at the rate of 25 percent per estimate period in which the non-conformance with this specification continues. Monies withheld for this non-conformance will be released for payment on the next monthly estimate for partial payment following the date the monthly submittal of the completed Inspection and Certification Form is brought back into compliance with this specification.

Upon successful completion of all permanent erosion and sediment controls for a covered project, accepted and documented by the Engineer, a completed Notice of Termination (NOT) of Coverage form shall be submitted to the Office of Pollution Control. If no sediment and erosion control problems are identified, the prime contractor will receive a termination letter from the Office of Pollution Control.

In summary, prior to the execution of the contract, the successful bidder shall execute and deliver to the Executive Director an original signed copy of the completed Prime Contractor Certification (Form No. 1). Also, prior to the commencement of construction on the project, the Contractor shall transmit by letter an original signed copy of the completed Prime Contractor Certification (Form No. 2) to the Office of Pollution Control, P.O. Box 10385, Jackson, Mississippi 39289-0385. Copies of the completed Prime Contractor Certification (Form No. 2) and letter of transmittal shall be furnished the Project Engineer as proof of the required filing with the Office of Pollution Control. At project completion, when accepted and documented by the Engineer, a Notice of Termination of Coverage will be submitted to the Office of Pollution Control.

Securing a permit (s) for storm water discharge associated with the Contractor's activity on any other regulated area the Contractor occupies, shall be the responsibility of the Contractor.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 640 **CODE: (IS)**

DATE: 09/26/2005

SUBJECT: Fiber Reinforced Concrete

Bidders are hereby advised that synthetic structural fibers meeting the requirements of Subsection 907-711.04 may be used in lieu of wire mesh in some items of construction. Substitution of fibers for wire mesh will be allowed in the construction of paved ditches, paved flumes, paved inlet apron, driveways, guard rail anchors and pile encasements. Substitution in any other items of work must be approved by the State Construction Engineer prior to use.

SUPPLEMENT TO NOTICE TO BIDDERS NO. 696

DATE: 06/06/2008

The goal is 6 percent for the Disadvantaged Business Enterprise. The low bidder is required to submit Form OCR-481 for all DBEs. Bidders are advised to check the bid tabulation link for this project on the MDOT website (http://www.gomdot.com/applications/bidsystem/currentletting.aspx) for results. Bid tabulations are usually posted by 3:00 pm on Letting Day.

Form OCR-481 is available at
http://www.gomdot.com/Divisions/CivilRights/Resources/Forms/pdf/MDOT_OCR481.pdf
or by calling 601-359-7466.

All OCR-481s must be returned within 10 days following the bid letting to the MDOT Office of Civil Rights, P.O. Box 1850, Jackson, MS 39215-1850.

For answers to questions, contact the MDOT Office of Civil Rights at (601) 359-7466.

The bidder's execution of the signature portion of the proposal shall constitute execution of the following assurance:

> The bidder hereby gives assurance pursuant to the applicable requirements of "Safe, Accountable, Flexible, Efficient Transportation Equity Act, A Legacy For Users (SAFETEA-LU)" and "Part 26, Title 49, Code of Federal Regulation" that the bidder has made a good faith effort to meet the contract goal for DBE participation for which this proposal is submitted.

A pre-bid meeting will be held in Amphitheater 1 & 2 of the Hilton Jackson located at I-55 and County Line Road, Jackson, Mississippi at 2:00 P.M. on the day preceding the date of the bid opening.

This meeting is to inform DBE firms of subcontracting and material supply opportunities. Attendance at this meeting is considered of prime importance in demonstrating good faith effort to meet the contract goal.

A list of "Certified DBE Contractors" which have been certified as such by the Mississippi Department of Transportation and other Unified Certification Partners (UPC) can be found on the Mississippi Department of Transportation website at www.gomdot.com. The DBE firm must be on the Department's list of "Certified DBE Contractors" that is posted online at the time the job is let and approved by MDOT to count towards meeting the DBE goal.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 696 **CODE: (IS)**

DATE: 12/20/2005

SUBJECT: DISADVANTAGED BUSINESS ENTERPRISES IN FEDERAL-AID HIGHWAY CONSTRUCTION

This contract is subject to the "Safe, Accountable, Flexible, Efficient Transportation Equity Act, A Legacy For Users (SAFETEA-LU)" and applicable requirements of "Part 26, Title 49, Code of Federal Regulations." Portions of the Act are set forth in this Notice as applicable to compliance by the Contractor and all of the Act, and the MDOT DBE Program, is incorporated by reference herein.

The Department has developed a Disadvantaged Business Enterprise Program that is applicable to this contract and is made a part thereof by reference.

Copies of the program may be obtained from:

Office of Civil Rights
Mississippi Department of Transportation
P. O. Box 1850
Jackson, Mississippi 39215-1850

POLICY

It is the policy of the Mississippi Department of Transportation to provide a level playing field, to foster equal opportunity in all federally assisted contracts, to improve the flexibility of the DBE Program, to reduce the burdens on small businesses, and to achieve that amount of participation that would be obtained in a non-discriminatory market place. In doing so, it is the policy of MDOT that there will be no discrimination in the award and performance of federally assisted contracts on the basis of race, color, sex, age, religion, national origin, or any handicap.

ASSURANCES THAT CONTRACTORS MUST TAKE:

MDOT will require that each contract which MDOT signs with a subrecipient or a Contractor, and each subcontract the Prime Contractor signs with a Subcontractor, includes the following assurances:

"The Contractor, subrecipient or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as MDOT deems appropriate."

DEFINITIONS

For purposes of this provision the following definitions will apply:

"Disadvantaged Business" means a small business concern: (a) which is at least 51 percent owned by one or more socially and economically disadvantaged individual(s) or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individual(s); and (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individual(s) who own it. It is important to note that the business owners themselves must control the operations of the business. Absentee ownership or title ownership by an individual who does not take an active role in controlling the business is not consistent with eligibility as a DBE under CFR 49 Part 26.71.

CONTRACTOR'S OBLIGATION

The Contractor and all Subcontractors shall take all necessary and reasonable steps to ensure that DBE firms can compete for and participate in the performance of a portion of the work in this contract and shall not discriminate on the basis of race, color, national origin, religion or sex. Failure on the part of the Contractor to carry out the DBE requirements of this contract constitutes a breach of contract and after proper notification the Department may terminate the contract or take other appropriate action as determined by the Department.

When a contract requires a zero percent (0%) DBE goal, the Contractor still has the responsibility to take all necessary and reasonable steps to ensure that DBE firms can compete for and participate in the performance of the work in the contract. In this case, all work performed by a certified DBE firm is considered to be a "race neutral" measure and the Department will receive DBE credit towards the overall State goals when the DBE firm is paid for their work. If the Prime Contractor is a certified DBE firm, the Department can receive DBE credit only for the work performed by the Prime Contractor's work force or any work subcontracted to another DBE firm. Work performance by a non-DBE Subcontractor is not eligible for DBE credit.

CONTRACT GOAL

The goal for participation by DBEs is established for this contract in the attached Supplement. The Contractor shall exercise all necessary and reasonable steps to ensure that participation is equal to or exceeds the contract goal.

The percentage of the contract that is proposed for DBEs shall be so stated on the last bid sheet of the proposal.

The apparent lowest responsive bidder shall submit to the Contract Administration Division Form OCR-481, signed by the Prime Contractor and the DBE Subcontractors, no later than the 10th day after opening of the bids.

FORMS ARE AVAILABLE FROM THE CONTRACT ADMINISTRATION DIVISION

The OCR-481 Form must contain the following information:

The name and address of each certified DBE Contractor / Supplier;

The Reference Number, percent of work and the dollar amount of each item. If a portion of an item is subcontracted, a breakdown of that item including quantities and unit price must be attached, detailing what part of the item the DBE firm is to perform and who will perform the remainder of the item.

If the DBE Commitment shown on the last bid sheet of the proposal, does not equal or exceed the contract goal, the bidder must submit, with the proposal, information to satisfy the Department that adequate good faith efforts have been made to meet the contract goal.

Failure of the lowest bidder to furnish acceptable proof of good faith efforts, submitted with the bid proposal, shall be just cause for rejection of the proposal. Award may then be made to the next lowest responsive bidder or the work may be readvertised.

The following factors are illustrative of matters the Department will consider in judging whether or not the bidder has made adequate good faith effort to satisfy the contract goal.

(1) Whether the bidder attended the pre-bid meeting that was scheduled by the Department to inform DBEs of subcontracting opportunities;

(2) whether the bidder advertised in general circulation, trade association, and minority-focus media concerning the subcontracting opportunities;

(3) whether the bidder provided written notice to a reasonable number of specific DBEs that their interest in the contract is being solicited;

(4) whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested;

(5) whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goal;

(6) whether the bidder provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;

(7) whether the bidder negotiated in good faith with interested DBEs and did not reject them as unqualified without sound reasons based on a thorough investigation of their capabilities; and

(8) whether the bidder made efforts to assist interested DBEs in obtaining any required bonding or insurance.

DIRECTORY

Included with this Bid Proposal is a list of "Certified DBE Contractors" which have been certified as such by the Mississippi Department of Transportation and other Unified Certification Partners (UCP).

The DBE firm must be on the Department's list of "Certified DBE Contractors" that is attached to this proposal and approved by MDOT to count towards meeting the DBE goal.

REPLACEMENT

If a DBE Subcontractor cannot perform satisfactorily, and this causes the OCR-481 commitment to fall below the contract goal, the Contractor shall take all necessary reasonable steps to replace the DBE with another certified DBE Subcontractor or submit information to satisfy the Mississippi Department of Transportation that adequate good faith efforts have been made to replace the DBE. The replacement DBE must be a DBE who was on the Department's list of "Certified DBE Contractors" when the job was awarded, and who is still active. All DBE replacements must be approved by the Department.

Under no circumstances shall the Prime or any Subcontractor perform the DBE's work (as shown on the OCR-481) without prior written approval from the Department. See "Sanctions" at the end of this document for penalties for performing DBE's work.

When a Contractor proposes to substitute/replace/terminate a DBE that was originally named on the OCR-481, the Contractor must obtain a release, in writing, from the named DBE explaining why the DBE Subcontractor cannot perform the work. A copy of the original DBE's release must be attached to the Contractor's written request to substitute/replace/terminate along with appropriate Subcontract Forms for the substitute/replacement/terminated Subcontractor, all of which must be submitted to the DBE Coordinator and approved, in advance, by MDOT.

GOOD FAITH EFFORTS

To demonstrate good faith efforts to replace any DBE that is unable to perform successfully, the Contractor must document steps taken to subcontract with another certified DBE Contractor. Such documentation shall include no less than the following:

(a) Proof of written notification to certified DBE Contractors by certified mail that their interest is solicited in subcontracting the work defaulted by the previous DBE or in subcontracting other items of work in the contract.

(b) Efforts to negotiate with certified DBE Contractors for specific items shall include as a minimum:

(1) The name, address, and telephone number of each DBE contacted;

(2) A description of the information provided about the plans and specifications for those portions of the work to be subcontracted; and

(3) A statement of why agreements were not reached.

(c) For each DBE contacted that was rejected as unqualified, the reasons for such conclusion.

(d) Efforts made to assist each DBE that needed assistance in obtaining bonding or insurance required by the Contractor.

Failure of the Contractor to demonstrate good faith efforts to replace a DBE Subcontractor that cannot perform as intended with another DBE Subcontractor, when required, shall be a breach of contract and may be just cause to be disqualified from further bidding for a period of up to 12 months after notification by certified mail.

PARTICIPATION / DBE CREDIT

Participation shall be counted toward meeting the goal in this contract as follows:

(1) If the Prime Contractor is a certified DBE firm, only the value of the work actually performed by the DBE Prime can be counted towards the project goal, along with any work subcontracted to a certified DBE firm.

(2) If the Contractor is not a DBE, the work subcontracted to a certified DBE Contractor will be counted toward the goal.

(3) The Contractor may count toward the goal a portion of the total dollar value of a contract with a joint venture eligible under the standards of this provision equal to the percentage of the DBE partner in the joint venture.

(4) Expenditures to DBEs that perform a commercially useful function may be counted toward the goal. A business is considered to perform a commercially useful function when it is responsible for the execution of a distinct element of the work and carries out its responsibilities by actually performing, managing, and supervising the work involved.

(5) The Contractor may count 100% of the expenditures for materials and supplies obtained from certified DBE suppliers and manufacturers that produce goods from raw materials or substantially alters them for resale provided the suppliers and manufacturers assume the actual and contractual responsibility for the provision of the materials and supplies. The Contractor may count 60 percent of the expenditures to suppliers that are not manufacturers, provided the supplier performs a commercially useful function in the supply process. Within 30 days after receipt of the materials, the Contractor shall furnish to the DBE Coordinator invoices from the certified supplier to verify the DBE goal.

(6) Any work that a certified DBE firm subcontracts or sub-subcontracts to a non-DBE firm will not count towards the DBE goal.

(7) Only the dollars actually paid to the DBE firm may be counted towards the DBE goal.

AWARD

Award of this contract to the low bidder will be contingent upon the following conditions:

(1) Concurrence from Federal Highway Administration, when applicable.

(2) Bidder must submit to the Contract Administration Division for approval, Form OCR-481 (DBE Commitment) no later than the 10th day after opening of the bids, or submit information with the bid proposal to satisfy the Department and that adequate good faith efforts have been made to meet the contract goal.

(3) Bidder must submit **with the bid proposal** a list of all firms that submitted quotes for material supplies or items to be subcontracted. This information must be submitted on form OCR-485 in the back of the contract proposal.

Prior to the start of any work, the bidder must notify the Project Engineer, in writing, of the name of the designated "DBE Liaison Officer" for this project. This notification must be posted on the bulletin board at the project site.

DEFAULT

The contract goal established by MDOT in this proposal must be met to fulfill the terms of the contract. The Contractor may list DBE Subcontractors and items that exceed MDOT's contract goal, but should unforeseen problems arise that would prevent a DBE from completing its total commitment percentage, the Contractor will meet the terms of the contract as long as it meets or exceeds MDOT's Contract Goal. For additional information, refer to "Replacement" section of this Notice.

DBE REPORTS

(1) OCR-481: Refer to "CONTRACT GOAL" section of this Notice to Bidders for information regarding this form.

(2) OCR-482: At the conclusion of the project the Contractor will submit to the Project Engineer for verification of quantities and further handling Form OCR-482 whereby the Contractor certifies to the amounts of payments made to each Contractor / Supplier. The Project Engineer shall submit the completed Form OCR-482 to the DBE Coordinator (Office of Civil Rights). Final acceptance of the project is dependent upon Contract Administration Division's receipt of completed Form OCR-482 which they will receive from the Office of Civil Rights.

(3) OCR-483: The Project Engineer/Inspector will complete Form OCR-483, the Commercially Useful Function (CUF) Performance Report, in accordance with MDOT S.O.P. No. OCR-03-09-01-483. Evaluations reported on this form are used to determine whether or not the DBE firm is performing a CUF. The Prime Contractor should take corrective action when the report contains any negative evaluations. DBE credit may be disallowed and/or other sanctions imposed if it is determined the DBE firm is not performing a CUF. This form should also be completed and returned to the DBE Coordinator (Office of Civil Rights).

(4) OCR-484: Each month, the Contractor will submit to the Project Engineer OCR-484 certifying payments to all Subcontractors.

(5) OCR-485: The bidder must submit **with the bid proposal** a list of all firms that submitted quotes for material supplies or items to be subcontracted.

(6) OCR-487: Only used by Prime Contractors that are certified DBE firms. This form is used in determining the exact percentage of DBE credit for the specified project. It should be returned to MDOT with the OCR-481 form, or can also be returned with the Permission to Subcontract Forms (CAD-720 or CAD-725).

SANCTIONS

The Department has the option to enforce any of the following penalties for failure of the Prime Contractor to fulfill the DBE goal as stated on the OCR-481 form or any violations of the DBE program guidelines:

(1) Disallow credit towards the DBE goal

(2) Withhold progress estimate payments

(3) Deduct from the final estimate an amount equal to the unmet portion of the DBE goal

(4) Recover an amount equal to the unmet contract goal

(5) Debar the Contractor involved from bidding on Mississippi Department of Transportation projects.

(6) Deduct from the Contractor's final estimate all or any combination of the following.

Offense	Percentage of the monetary amount disallowed from (1) above	Lump Sum
# 1	10%	$ 5,000 or both
# 2	20%	$ 10,000 or both
# 3	40%	$ 20,000 & debarment

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 777 **CODE: (IS)**

DATE: 04/13/2006

SUBJECT: On-The-Job Training Program

Payment for training hours will be handled as outlined in Special Provision 906-6. A pay item for trainees will not be included in individual construction projects. Payment for training individuals will be processed in accordance with the conditions in MDOT's ON-THE-JOB TRAINING PROGRAM (Special Provision 906-6).

On Federal-Aid projects, failure on the part of the Contractor to carryout the terms of the Alternate Training Special Provision (Special Provision 906-6) will be considered grounds to preclude the Contractor from participating in the Alternate On-The-Job Training Program. In the event the Department is required to preclude the Contractor from participating in the program, the Contractor will be required to adhere to the requirements of the Training Special Provision (Special Provision 906-3), for which purpose the special provision is also made a part of this proposal.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 883 **CODE: (IS)**

DATE: 04/28/2006

SUBJECT: Payroll Requirements

Bidders are hereby advised that the Contractor and Subcontractor(s) are required to submit payroll information to the Project Engineers on a weekly basis.

On Federal-Aid Projects, CAD-880, CAD-881 and certified payroll submissions are required each week the Contractor or a Subcontractor performs work on the project. This is addressed in Section V, page 6 of Form FHWA-1273.

On State-Funded Projects, CAD-880 is required each week the Contractor or a Subcontractor performs work on the project.

When no work is performed on either Federal-Aid and State-Funded Projects, the Contractor should only submit CAD-880 showing no work activities.

The Contractor shall make all efforts necessary to submit this information to the Project Engineer in a timely manner. The Engineer will have the authority to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to submit the required information. Submission of forms and payrolls shall be current through the first full week of the month for the estimate period in order for the Project Engineer to process an estimate.

Bidders are advised to review the requirements regarding payroll submissions in Section 110 of the Standard Specifications.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1322 **CODE: (SP)**

DATE: 1/22/2007

SUBJECT: Non-Use of Precast Drainage Units

Bidders are hereby advised that the use of precast inlets and junction boxes will **NOT** be allowed on this project. Subsection 601.02.3 states that " the Contractor may request approval from the Engineer to furnish and install precast units in lieu of cast-in-place units". Should the Contractor make this request, the request will be denied.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1405 **CODE: (IS)**

DATE: 03/15/2007

SUBJECT: ERRATA AND MODIFICATIONS TO THE 2004 STANDARD SPECIFICATIONS

Page	Subsection	Change
101	201.01	In the second sentence of the first paragraph, change “salvable” to “salvageable”.
107	202.04	In the fourth sentence of the fourth paragraph, change “yard” to “feet”.
107	202.05	In the list of units measurements for 202-B, add “square foot”.
132	211.03.4	In the second sentence of the second paragraph, change “planted” to “plated”.
192	306.02.4	In the first line of the first paragraph, delete the word “be”.
200	307.03.7	In the fourth sentence of the second paragraph, change “lime-fly ash” to “treated”.
236	401.01	Change the header from “Section 403” to “Section 401”.
242	401.02.3.2	In the first sentence of the third full paragraph, add “1/8” in the blank before the inch mark.
250	401.02.6.3	In the second sentence of the first paragraph on page 250, change “rutting over ” ” to “rutting over 1/8" ”.
253	401.02.6.4.2	In the paragraph preceding the table, change “91.0” to “89.0”.
259	401.03.1.4	In the first paragraph, change “92.0 percent” to “the specified percentage (92.0 or 93.0)”.
269	403.03.2	In the table at the top of page 269, change the PI requirement from “ = ” to “ $\leq$ ”.

278	404.04	In the second sentence, change the subsection from "401.04" to "403.04".
283	409.02.2	Change "PG 64-22" to "PG 67-22".
294	413.02	In the first sentence of the second paragraph, change "707.02.1.3" to "Subsection 707.02.1.3".
340	511.04	In the second sentence of the second paragraph, change "412" to "512".
349	601.03.3	In the first sentence, change "804.03.2" to "804.03.5".
355	603.02	Change the subsection reference for Joint mortar from "707.03" to "714.11".
369	604.04	In the first sentence, change "601.04" to "Subsection 601.04".
427	619.04	Delete the second paragraph.
442	625.04	In the third paragraph, change "626.04" to "Subsection 626.04".
444	626.03.1.2	Delete the third sentence of the first paragraph.
464	631.02	Change the subsection reference for Water from "714.01.0" to "714.01.1".
570	682.03	Change the subsection number from "682-03" to "682.03".
575	683.10.4	Change the subsection number from "683.10.4" to "683.04".
575	683.10.5	Change the subsection number from "683.10.5" to "683.05".
596	701.02	In the table under the column titled "Cementations material required", change Class F, FA" to "Class F FA,".
603	702.11	In the first sentence, change "702.12" to "Subsection 702.12".
612	703.04.2	In the fifth paragraph, delete "Subsection 703.11 and".
616	703.07.2	In the Percentage By Weight Passing Square Mesh Sieves table, change the No. 10 requirement for Class 7 material from "30 - 10" to "30 - 100".

618	703.13.1	In the first sentence of the first paragraph, change "703.09" to "703.06".
618	703.13.2	In the first sentence, change "703.09" to "703.06".
671	712.06.2.2	In the first sentence, change "712.05.1" to "Subsection 712.05.1".
689	714.11.2	In the first sentence, change "412" to "512".
709	715.09.5	In the first sentence of the first paragraph, change "guage" to "gauge".
717	717.02.3.4	In the top line of the tension table, change "1 1/2" to "1 1/8" and change "1 1/8" to "1 1/2".
741	720.05.2.2	In the last sentence of this subsection, change "720.05.2.1" to "Subsection 720.05.2.1".
827	803.03.2.3.7.5.2	In the first sentence of the second paragraph, change "803.03.5.4" to "803.03.2.3.4".
833	803.03.2.6	In the first sentence, change "803.03.7" to "803.03.2.5".
854	804.02.11	In the last sentence of the first paragraph, change "automatically" to "automatic".
859	804.02.13.1.3	In the last sentence, change Subsection "804.02.12.1" to "804.02.12".
879	804.03.19.3.2	In the first sentence of the third paragraph, change "listed on of Approved" to "listed on the Approved".
879	804.03.19.3.2	In the last sentence of the last paragraph, change "804.03.19.3.1" to "Subsection 804.03.19.3.1".
962	814.02.3	In the first sentence, change "710.03" to "Subsection 710.03".
976	820.03.2.1	In the first sentence, change "803.02.6" to "803.03.1.7".
976	820.03.2.2	In the first sentence, change "803.03.9.6" to "803.03.1.9.2".
985	Index	Change the subsection reference for Petroleum Asphalt Cement from "702.5" to "702.05".

985	Index	Change the subsection reference for the Definition of Asphaltic Cement or Petroleum Asphalt from "700.2" to "700.02".
985	Index	Change the subsection reference for Automatic Batchers from "501.03.2.4" to "804.02.10.4".
986	Index	Delete "501.03.2" as a subsection reference for Batching Plant & Equipment.
988	Index	Change the subsection reference for the Central Mixed Concrete from "501.03.3.2" to "804.02.11".
988	Index	Change the subsection reference for the Concrete Batching Plant & Equipment from "501.03.2" to "804.02.11".
999	Index	Delete "501.03.3.3" as a subsection reference for Truck Mixers.
1001	Index	Change the subsection reference for Edge Drain Pipes from "605.3.5" to "605.03.5".
1002	Index	Change the subsection reference for Metal Posts from "713.05.2" to "712.05.2".
1007	Index	Change the subsection reference for Coarse Aggregate of Cement Concrete Table from "703.3" to "703.03".
1007	Index	Change the subsection reference for Composite Gradation for Mechanically Stabilized Courses Table from "703.8" to "703.08".
1009	Index	Delete "501.03.3.3" as a subsection reference for Truck Mixers and Truck Agitators.
1010	Index	Delete reference to "Working Day, Definition of".

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1669 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: General Conditions - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following when bidding this project.

System Description. Where custom built equipment is specified and an independent testing laboratory label or listing is not applicable to the completed product, components used in the construction and assembly of such equipment must be labeled or listed by an independent testing laboratory acceptable to the local governing authorities, where such label or listing is applicable to the components. These labels shall be securely affixed to the components in a conspicuous location.

The Mechanical and Electrical Drawings are diagrammatic, intending to show general locations and arrangements of piping, wiring, equipment, and specialties and not necessarily showing the required offsets, connections, or appurtenances. Accurately lay out work in cooperation with other trades to avoid conflicts and to obtain a neat and workmanlike installation which will afford maximum practical accessibility for operation, maintenance, and headroom.

Drawing scale is selected for convenience in presentation and not for establishment of dimensions. Drawing dimensions shall be used for performance of work. Actual dimensions shall be verified at the site to determine that sufficient space exists and that no interference will be caused.

Submittals. The Contractor shall file necessary drawings with the Insurance Authority and Local Authorities, if their approval is required. Copies of these drawings bearing the stamp of approval of the authorities having jurisdiction shall be submitted to the Engineer prior to starting the Work.

The Contractor shall maintain at the site one record copy of all drawings, specifications, addenda, and other modifications, in good order and marked currently to record all changes made during construction; and shall maintain at the site reviewed shop drawings, product data, and samples. These shall be available to the Engineer and shall be delivered to the MDOT/Owner upon completion of the work and during construction at time of submission of payment application. Failure to maintain and submit record drawings may be subject to withholding payment due to the Contractor until document markings are current with status of project.

Drawings shall be submitted as hard copies as well as in electronic form. The electronic format acceptable is Autocad *.dwg or *.dxf. Shop drawings, product data, and samples shall comply with individual specification section requirements and as follows:

1. Shop drawings shall be one reproducible sepia for return with remarks noted if larger than 11" x 17".
2. Product data shall be submitted in a quantity of six (6) copies.
3. Samples shall be submitted in a quantity of three (3); one to be retained by the Engineer, one to be retained at the construction site, and one to be returned by the Engineer to the originator after approval.
4. Approval indicates conformance to contact documents; not performance, code compliance, dimensions, or quantities. It does not constitute approval to vary from contract documents. Disapproved shop drawings, product data, and samples shall be resubmitted for approval in same manner as for first submittal.
5. No portion of the work requiring shop drawings, product data or sample approval shall be started until Engineer approval is obtained in writing.

Execution. The Contractor must assign an individual to be responsible for site safety. The Contractor shall be responsible for providing water to the site if required. The Contractor shall also be responsible for providing sewer facilities (chemical toilets). The Contractor will provide for temporary power at the site.

Bid Breakdown. The Contractor shall prepare a detailed bid breakdown to be used for estimating progress of the work. Breakdowns used shall address the individual sections of the specifications. Some sections may be combined if they do not contribute substantially to the cost of the project. The Engineer reserves the right to request modifications to the breakdown to address individual items if required.

Cleanup. The premises and project site shall be maintained in a reasonable neat and orderly condition, free from accumulations of waste materials and rubbish during the entire construction period.

Crates, cartons, trash and flammable waste materials shall be removed from the work areas by the end of each working day.

Trash or debris shall not be disposed of by burning on project site.

The site must be kept clean and leave free from rubbish and construction debris. Keep other areas such as electrical closets, pipe and duct shafts, chases, furred spaces and similar spaces free from dirt and dust. Also keep the roof drains and roof areas clean.

Any finished surface which is defaced in any way shall be cleaned and restored.

Runner strips of nonstaining kraft building paper on finished floors shall be proved and maintained.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1670 **CODE: (SP)**

DATE: 07/10/2007

SUBJECT: General Electrical Requirements - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following conditions regarding utility electrical work when bidding this project.

GENERAL CONDITIONS

Approval Of Materials And Equipment. Whenever a material, article, or piece of equipment is identified on the plans or in these specifications by reference to manufacturer's or vendor's name, trade name, catalog number or the like, it is so identified for the purpose of establishing a standard of quality and shall not be construed as limiting competition. Any material, article, or piece of equipment of other manufacturers or vendors, which will perform adequately the intent of the design, will be considered equally acceptable provided written approval has been granted by the Engineer. Materials submitted for approval shall comply with all applicable sections of the specifications prior to acceptance. The Engineer's opinion shall be final on the equality of substituted items.

After the Contract has been awarded, catalog cuts on the following items shall be submitted to the Engineer for final approval before purchase of the equipment whether substitutions are being made or not:

1. Enclosed Circuit Breakers
2. Fabricated Equipment

Testing And Balancing. Prior to acceptance, the Contractor shall conduct and record insulation tests of all feeder and motor branch circuits. The insulation testing shall be accomplished utilizing an meg-ohm meter. Verification of test results shall be witnessed by the Engineer or the Engineer’s designated representative. The Contractor shall submit a written report of all readings of each feeder and circuit.

All branch circuits and feeders shall be tested under maximum and typical load conditions, and loads shall be balanced on the phases of the electrical system. The Contractor shall submit written report of final load readings of all loads on each feeder.

Operating And Maintenance Instructions/As Built Drawings. Four (4) complete sets of instructions containing the manufacturer's operating and maintenance instructions for each piece of equipment shall be furnished to the MDOT. Each set shall be permanently bound and shall have a hard cover. One complete set shall be furnished at the time that the test procedure is submitted, and remaining sets shall be furnished before the Contract is completed. Flysheets

shall be placed before instructions covering each subject. The instruction sheets shall be approximately 8-1/2" by 11" with large sheets of drawings folded in. The instructions shall include information for major pieces of equipment and systems.

Upon completion of the work and at the time designated, the Contractor shall make arrangements to provide on-site instructions to a representative in the operations and maintenance of the systems.

The Contractor shall provide as-built Drawings at the completion of the job. The Drawings shall show any significant changes in equipment, wiring, routing, location, etc.

Guarantee. This Contractor shall guarantee that all work performed under this contract is free from defects in workmanship and material for a period of one year from date of final inspection. Any defects arising during this period will be promptly remedied by the Contractor without any additional costs to the State. Lamps and fuses burned out during normal operation after acceptance are exempt from the guarantee. This Contractor shall furnish MDOT / OWNER with an estimated time, from notification of a problem to presence on the site, for all service calls on warranty items.

Compliance. In the event of a conflict between Specifications, Plans, Codes, Requirements, etc., the most stringent requirements shall govern. The interpretation of conflicts and resolution thereof shall remain the right of the Engineer.

MATERIALS

Ground rod shall be copper clad steel, not less than 3/4 inch in diameter, 10 feet long driven full length into the earth. Grounding conductors of the size shown and the type specified shall be provided. Below grade ground connections shall be made by a exothermic-welded type connector as manufactured by Cadweld, Thermoweld, or approved equal, or compression type connectors designed for this special purpose of manufactured by Burndy, Thomas and Betts, or approved equal. Above grade connections shall be made by a exothermic-welded compression, or brazed connector. All control equipment shall be grounded in accordance with the requirements specified herein. In addition, branch conductors shall be routed between the surge suppressors and point of attachment to the main grounding conductors in the shortest, most direct route. Bends in excess of 90 degrees in any grounding conductor shall not be permitted. A radius of six inches (6") or greater shall be maintained on all bends. All equipment enclosures in all equipment rooms shall be bonded together and to electrical equipment panels and other metallic objects within 3' 0" with a No. 6 bare copper conductor and approved lugs. Conductors shall interconnect enclosures together and shall be run following the shortest path possible.

Mechanical connectors shall be cast bronze construction with matching bolt, nuts, and washers.

Exothermic weld materials shall be from the same source. Materials shall be Cadweld or approved equal.

Conductors shall be insulated type complying with applicable sections of the contract, or bare soft drawn copper as indicated.

Conduit shall be 1) rigid galvanized steel conduit or 2) plastic conduit and tubing meeting NEMA TC 2 or PVC Schedule 40.

Conduit fittings and conduit bodies shall be 1) steel, threaded type meeting NEMA FB 1. Split couplings are not acceptable, 2) plastic fittings and conduit bodies meeting NEMA TC 3, or 3) seal off fittings made of cast ferroalloy EYS with packed fiber and sealing compound.

Electrical boxes shall be cast aluminum or cast feralloy, deep type with gasketed cover and threaded hubs. Large enclosures shall be NEMA 250 Type 4, stainless steel enclosures with manufacturer's standard enamel finish and cover, held closed with screws.

Building wire shall meet the following:

1. Feeder and Branch Circuits 10 AWG and Smaller: Copper, solid conductor, 600 volt insulation, rated 75ºC, THHN/THWN.
2. Feeder and Branch Circuits 8 AWG and 6 AWG: Copper, stranded conductor, 600 volt insulation, rated 75ºC, THHN/THWN.
3. Feeder and Branch Circuits Larger Than 6 AWG: Copper, stranded conductor, 600 volt insulation, rated 75ºC, THW.
4. Control Circuits: Copper, stranded conductor, 600 volt insulation, THHN/THWN.

Circuit Breaker shall be Square D Company, ITE-Siemens, General Electric Company, or approved equal. They shall meet the requirements of NEMA AB 1 for the voltage shown on the plans. Circuit Breaker Enclosure shall be NEMA AB 1; Type 4X stainless steel.

Wood poles shall be Southern Pine Kiln dried to a 25% moisture content and treated with water-borne preservatives. Poles shall be of the length and class as indicated on the plans. Poles shall comply with the requirements of ANSI 05.1 Poles shall be selected for maximum straightness, minimum sweeps and short crooks. The Engineer reserves the right to reject any pole not deemed suitable for the installation and service requirement. Treatment of poles shall comply with the requirements of AWPA Standard C1. Preservative shall be water-borne Chromated Copper Arsenate (CCA) type C (oxide) conforming to AWPA Standard P5. Sapwood penetration of 100% shall be obtained.

SUPPORTS

Fabrication steel shall be galvanized or painted steel of standard shapes and sizes.

Manufactured channel shall be hot dipped galvanized with all hardware required for mounting as manufactured by Unistrut, Kindorf, Powerstrut or approved equal.

Miscellaneous hardware shall be standard sizes treated for corrosion resistance.

IDENTIFICATION

Nameplates shall be engraved three-layer laminated plastic, black letters on white background.

Wire and cable markers shall be cloth type, split sleeve type, or tubing type.

INSTALLATION

Except where specifically indicated otherwise, all exposed non-current-carrying metallic parts of electrical equipment, metallic raceway systems, and service neutral of the electrical system shall be grounded.

Equipment grounding shall be accomplished by installing a separate grounding conductor in each raceway of the system. The conductor shall be provided with a distinctive green insulation or marker and shall be sized in accordance with Table 250-95 of the National Electrical Code for circuit ampacity ratings.

The electrical system grounding electrode shall be made at the main service equipment and shall be extended to the point of entrance of the metallic cold water service. Connection to the water pipe shall be made by a suitable ground clamp. If flanged pipes are encountered, connection shall be made on the street side of the flange connection. If the metallic water service is coated with an insulating material or there is no metallic water service to the building, ground connection shall be made to ground rods at the exterior of the building driven full length into the earth. The maximum resistance of the driven ground shall not exceed 25 ohms under normally dry conditions. If this resistance cannot be obtained with a single rod, additional rods shall be installed not less than 6-foot on centers, or if sectional type rods are used, additional sections may be coupled together and driven with the first rod. The resultant resistance shall not exceed 25 ohms measured not less than 48 hours after rainfall.

Electrical connections to equipment shall be made in accordance with equipment manufacturer's instructions.

The wiring and outlet rough-in work shall be verified for completeness and that equipment is ready for electrical connection, wiring, and energization. Wiring connections shall be made in control panel or in wiring compartment of pre-wired equipment. Interconnecting wiring shall be provided as required by equipment manufacturer.

Support systems shall be sized and fastened to accommodate weight of equipment and conduit, including wiring, which they carry. Hanger rods, conduit clamps, and outlet and junction boxes shall be fastened to structures using precast insert system, expansion anchors, preset inserts, beam clamps, or spring steel clips. DO NOT DRILL STRUCTURAL STEEL MEMBERS. Supports shall be fabricated from structural steel or steel channel.

Surface mounted cabinets and panelboards shall be installed with minimum of four anchors.

Electrical distribution and control equipment, and loads served, shall be identified to meet regulatory requirements and as specified herein. Surfaces shall be degreased and cleaned before placing nameplates. The nameplates shall be secured to equipment fronts using screws or rivets with edges parallel to equipment lines. Nameplates shall have 1/4-inch lettering to identify enclosed circuit breakers. Label shall read "Main Breaker".

Wire markers shall be installed on each conductor in gutters, boxes, and at load connections.

Conduit and tubing shall be used for raceways in the following locations:

1. Underground Installations: Rigid steel conduit, painted with two coats of epoxy asphaltum paint or PVC conduit.
2. Installations In Concrete: Rigid steel conduit or PVC conduit.
3. Exposed Outdoor Locations: Rigid steel conduit.

Raceways shall be sized for conductor type installed.

Conduit and tubing shall be arranged to maintain headroom and to present a neat mechanical appearance.

1. Use approved manufactured conduit hangers and clamps; do not fasten with wire or perforated pipe straps.
2. Use conduit bodies to make sharp changes in direction.
3. Terminate all conduits with insulated bushings.
4. Use suitable caps to protect installed raceway against entrance of moisture and dirt.
5. Install plastic conduit and tubing in strict accordance with the manufacturer's recommendations. When plastic conduit is installed, use galvanized rigid elbows for 90° bends.

Electrical boxes shall be installed as shown on the plans, and as required for splices, taps, wire pulling, equipment connections and regulatory requirements.

Regarding building wire in raceways, no wire smaller than 12 AWG shall be used for power and lighting circuits, and no smaller than 14 AWG shall be used for control wiring. Conductors shall be sized to compensate for voltage drop. The wiring shall be neatly trained and secured inside boxes, equipment and enclosures.

Only use UL listed wire pulling lubricant for pulling conductors in raceways.

Splices, taps, and terminations shall be made to carry full ampacity of conductors without perceptible temperature rise.

Field inspection and testing of circuits shall be performed as stated above. The wire and cables shall be inspected for physical damage and proper connection, conductor connections and terminations shall be torque tested to manufacturer's recommended values, and the continuity test shall be performed on all power and equipment branch circuit conductors. Proper phasing connections shall also be verified.

Utility services and wood poles shall be installed in accordance with utility company standards and requirements. Utility company will connect the service drop to the service entrance conductors.

Except where specifically indicated otherwise, all exposed noncurrent-carrying metallic parts of electrical equipment, raceway systems, and the neutral of all wiring systems shall be grounded in strict accordance with the NEC, State, and other applicable laws and regulations.

Where grounding conductors are shown, the wires shall be bonded to metallic enclosures at each end and to all intermediate metallic enclosures. Grounding conductors shall be connected to all grounding bushings on raceways. Where any equipment contains a ground bus, extend and connect grounding conductors to that bus. The enclosure of the equipment containing the ground bus shall be connected to that bus. Ground conductors shall be run inside conduits enclosing the power conductors.

Connections of any grounding conductors to motors 10 horsepower and above, or circuits 20 amps or above, shall be made by a solderless terminal and 5/16-inch minimum bolt tapped to the motor frame or equipment housing. Ground connections to smaller motors or equipment may be made by fastening the terminal to a connection box. Junction boxes shall be connected to the equipment grounding system with grounding clips mounted directly on the box or with 3/8-inch machine screws. All paint, dirt, or other surface coverings shall be completely removed at grounding conductor connection points so that good metal-to-metal contact is made.

Sufficient ground rods shall be made in addition to code required grounding so that resistance to ground as tested by standard methods does not exceed five (5) ohms, unless otherwise accepted. Where more than one rod is required, the length of the ground rod shall be extended until the required resistance is achieved, or install multiple rods at a minimum of 10 feet separation.

Metal sheathing and any exposed metal vertical structural elements of buildings shall be grounded. Metal fences enclosing electrical equipment shall be grounded. Any metal equipment platforms which support electrical equipment to that equipment shall be bonded. Good electrical contact shall be provided between metal frames and railings supporting pushbutton stations, receptacles, instrument cabinets, etc., and raceways carrying circuits to these devices.

Unless shown otherwise, connections of grounding conductors to ground rods shall be made at the upper end of the rod with the end of the rod and the connection point below finished grade.

All ground fault interrupter (GFI) receptacles and circuit breakers shall be tested for proper connection and operation with methods and instruments prescribed by the manufacturer.

Copies of reports of all grounding system tests shall be provided for inclusion in Operation and Maintenance Manuals and for review by the Engineer.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1671 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: General Piping Requirements - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following general condition when bidding this project.

Clearance Between A Potable Water Line And A Wastewater Line.
Where the location of the potable waterline is not clearly defined by dimensions on the drawings, the outside edge of the potable waterline shall not be laid closer horizontally then ten feet from the outside edge of the wastewater line, except where the bottom of the potable waterline will be at least 18 inches above the top of the wastewater line; in which case, the potable waterline may be laid closer provided the potable waterline is laid in a separate trench.

If the 10 foot horizontal separation between water and sewer lines cannot be maintained then the water line should be ductile iron with the water line joints located at the maximum distance possible from sewer line joints. PVC pipe may be used if it is protected by a steel casing. Also the water and sewer lines must be in separate trenches with adequate space for maintenance.

Where it is necessary for a potable waterline to cross under a wastewater line, both the potable waterline and the wastewater line shall be constructed of mechanical joint cast iron or ductile iron pipe for a distance of ten feet on each side of the crossing with no joint located within eight feet of the crossing; or the wastewater line shall be encased in concrete with a minimum of four inch thickness at the bells at ten feet on either side of the crossing.

Where sewer lines cross above water lines, a minimum vertical clearance of 18 inches is required and one full length of water pipe shall be located so that both joints will be as far from the sewer as possible. In lieu of maximizing the joint spacing, the Contractor may encase the sewer line in concrete with a minimum of four inch thickness at the bells for a distance of ten feet on each side of the crossing.

Material Requirements
Buried Line Identification shall be per Notice To Bidders No. 1679.

Conflict Box shall be a cast-in-place concrete per Sections 601 & 602 of the Standard Specifications. Length, width and depth per Plans. Lid and frame shall be water tight lid and frame shall be ASTM A48, Class 35B, cast-iron construction, machined flat bearing surface, hinged lid with drop handle, live load rating of H-20.

Fire Hydrant Assembly shall be per special provision. Isolation valve shall be a gate valve as described in this section. Pipe shall be 6-inch diameter of the same material as the supply main.

Pipe restraint shall be per special provision.

Flush Hydrant Assembly shall have a 2¼ inch diameter main valve opening with a 3-inch bottom connection equipped with a 2½ inch diameter hose nozzle. Hydrant shall confirm to AWWA C502. Hydrant shall be M & H Style 33 Post Hydrant or approved equal. Interior and exterior surfaces shall be coated with a fusion bonded epoxy coating. Isolation valve shall be a gate valve as described in this section. Pipe shall be 3-inch diameter of the same material as the supply main. Pipe restraint shall be as described in this section

Meter Boxes, if not specified on the Project Drawings, shall be a polyethylene box with top door access, measuring 12" W x 18" L x 12" D with predrilled 2-inch hole for touch read sensor. Prior approval by the Engineer shall be required.

Pipe (Joint) Restraint shall be as follows.

PVC: Megalug manufactured by EBBA Manufacturing Company, Uni-Flange joint restraints by Ford Meter Box Company Incorporated or approved equal.

Ductile-iron: Gripper Gaskets or approved equal.

Pipe Hangers shall be fabricated as indicated on the drawings and hot dip galvanized after fabrication.

Potable Water Service Assembly shall be as follows.

PVC Water Main:

HDPE tubing: Tubing, of size shown on Project Drawings, shall conform to all applicable requirements of ANSI/AWWA C901 and ASTM Specifications D2239 and D2737. The tubing shall be marked at intervals of no more than five feet with tubing size, the type of plastic material, pressure rating of 200 psi, ASTM or ANSI/AWWA designation, manufacturer's name, and National Sanitation Foundation Seal of approval. Connections shall be made by compression type fittings.

Service Clamps: Service clamp shall be a double strap, stainless steel clamps for the size of pipe specified.

Pressure gauges shall be bellows or bourdon tube, 4½-inch dial; 0 to 100 psi scale and liquid filled by Ashcraft "Duragauge" Model No. 1279/1379, Margh "Mastergauge" or approved equal.

Residential Water Meters shall be 5/8" x 3/4", magnetic drive with hermetically sealed registers indicating gallons with maximum working pressure of 150 psig and bronze casing. Commercial Meters shall be 1-inch. Meter shall be Dialog 3G-DS RF Multi-Jet Meters as manufactured by Master Meter, Inc. or approved equal. Meters shall be wireless meters compatible with the existing system.

T-Handled Operating Wrench For buried Gate Vale shall be a Mueller galvanized operating wrench or approved equal. Total length shall be five (5) feet.

Valves shall meet the following.

Release Valve: Plastomatic Model #ARV050EPT-PV, 0-150 psi with the optional vacuum check valve, or approved equal.

Angle Valves: Angle type valves 1 1/2 inches and smaller shall have brass or bronze body with rising stem, screwed ends and composition disc, rated a minimum 250-psi WOG. Valves shall be Jenkins Figure 108BJ or approved equal.

Backflow Preventor: Double check valve assembly with outside stem and yoke gate valves, Watts model 709 or approved equal.

Ball Valves: Ball valves two inches (2") and smaller shall be all-bronze, top or bottom entry tape, with screwed ends, full bore ports, Teflon seats, and hand lever operators, rated a minimum 250 psi WOG, 125 psi SWP. Valves shall be Matco-Norca 757; or approved equal.

Check Valves: Check valves two inches (2") and smaller shall be all bronze, with screwed ends and cap, regrinding seat, Y-pattern body, and swing type disc. Valves shall be rated for 125-pound SWP, 200-pound WOG, and shall be Crane Figure 37; or approved equal.

Check Valves 2 1/2 inches through 12 inches inclusive shall be flanged end, cast iron body, bronze mounted swing type with solid bronze hinges and stainless steel hinge shaft. Valves shall be rated 200-pound WOG, and shall be Val-Matic Valve and Manufacturing Corporation Series 9800 or approved equal.

Curb Stops: Valves for water services shall be Mueller H-15172 with lock wing, or approved equal.

Corp Stop: Mueller model H-15008, or approved equal.

Drain Cocks: Drain cocks, 1-inch and smaller, shall be 125-pound bronze body square head type with screwed ends and stop, Lunkenheimer Figure 454; or approved equal.

Gauge Cocks: Gauge cocks shall bronze body valves, hexagon end pattern with tee head and male and female ends, rated for 125-pound SWP, Lunkeheimer Figure 1180 or approved equal.

Gate valves two inches (2") and larger for buried water or sewer services shall be iron body, resilient seated gate valves conforming to AWWA C509. Valve to be supplied with mechanical joint ends, non-rising bronze stem, O-ring sealed stuffing box and 2-inch square wrench nut. Valve shall be Mueller model A-2360, U.S. Pipe Metroseal, Clow model F5065 or approved equal.

Valve Boxes shall be slip-type to adjust for different buried depths. Extension pieces, if

required, shall be the manufacturer's standard type. The flange base of the cover shall be at least 6 inches above the pipe. The word WATER shall be cast into the top of the lid. Units shall be Mueller H-10364, Clow Corporation F-2452, or approved equal. All units shall be complete with all necessary bases and accessories.

Water Sampling Stations shall be as manufactured by GIL Industries, Model No. EH101, or approved equal.

Construction Requirements

All pipe shall be subject to visual inspection by the Engineer or the Engineer's representative for size and dimension, straightness, splitting, cracking and finish of ends. Pipe shall be rejected that does not meet the intent of the specification.

Contractor shall carefully inspect each pipe and fitting before the exposed pipe or fitting is installed or the buried pipe or fitting is lowered into the trench.

Any interior and exterior protective coating shall be inspected, and all damaged areas patched in the field with material similar to the original.

Each pipe and fitting shall be carefully inspected by the Engineer representative prior to backfilling. Any joint or fitting that is backfilled without being inspected will be exposed at the Contractor's expense to the satisfaction of the inspector for verification and compliance. If working more than one crew, the Contractor shall coordinate times with the Engineer's representative for inspection and verification of installed pipe prior to backfilled.

Use proper implements, tools, and facilities for the safe and proper protection of the pipe. No lifting hook or other device shall be used over the end of a section of pipe to unload or lower the pipe into the trench which may damage the pipe ends or barrel. Carefully handle pipe in such a manner as to avoid any physical damage to the pipe. Do not drop or dump pipe into trenches under any circumstances.

Clean ends of pipe thoroughly. Remove foreign matter and dirt from inside of pipe and keep clean during and after laying.

All piping shall be supported in a manner which will prevent undue stress on any valve, fitting, or piece of equipment. In addition, pipe support shall be provided at changes in directions or elevation, adjacent to flexible couplings, and where otherwise shown. Pipe supports and hangers shall not be installed in equipment access areas.

Unless stated otherwise on the Project Drawings, joints between dissimilar buried pipe shall be made with flexible mechanical compression joint coupling with No. 305 stainless steel bands as manufactured by Joints, Inc. (Calder) of Gardena, CA; Fernco Joint Sealer Co. of Ferndale, MI; or approved equal, or a concrete closure collar as directed by the Engineer.

Flange joints shall be used on ductile-iron pipe. PVC joints shall either be flanged or "cemented". Flanges shall be used for pipe joints when specifically shown on the drawings.

Each push on joint of either pressure or gravity pipe installed within a casing pipe shall be provided with joint restraint. Unless other wise specified on the drawing, push-on joints for PVC pipe and ductile-iron pipe shall be restrained over the length specified for the fittings listed in the table below.

Fittings	Length In Feet Of Restrained Pipe Each Way From Fitting
Tee	80
90 degree elbow	80
45 degree elbow	60
22.5 degree elbow	40
Plug	80
Valve	80

Install the restraint in strict according with manufacturer's recommendations. All bolts shall be sheared utilizing a torque wrench and the torque required to shear the bolts shall be recorded.

Within the limitations noted above, all pipe materials and joints do not necessarily have to be the same for all lines in a specific service, except that the materials and joints for any particular structure, or between any two structures or for any particular buried line, shall be the same. An exception to this is where ends must be changed from grooved to flanged to accommodate valves or fittings.

When the pipe laying is not in progress, including the noon hours, the open ends of pipe shall be closed, and no trench water, animals, or foreign material shall be permitted to enter the pipe.

Where buried PVC and Ductile-Iron pipe is connected to concrete structures, the connection shall be made as shown. If the connection is not shown, make connection such that a standard pipe joint is located no more than 18 inches from the structure.

Conflict Box shall be constructed at the locations and elevations indicated and as detailed on the Project Drawings. Installed pipe invert elevations at manholes shall not vary by more than 0.05 feet from the invert elevations designated on the Project Drawings. Joints in tops shall be made using approved gasket materials.

Conflict frame and cover shall be installed so that the top of the cover is flush with the finished grade of the surrounding ground. Fill any cover lifting holes and other voids inside and outside with non-shrink grout. The inside of the conflict box shall be cleaned of all loose mortar, framing material and other debris. Coat inside of conflict box with coal tar epoxy enamel. Provide time to allow inspection of the surface prior to coating. Contract the Engineer at least 48 hours prior to coating. Prior to conflict box installation prepare beneath the elevation of the bottom of the conflict box base a #610 limestone sub-grade soil foundation of the dimensions shown on the Project Drawings.

Field Quality Control

Conduct pressure and leakage test on all newly installed pipelines. Furnish all necessary equipment and material and make all taps in the pipe, as required. The Engineer will monitor the tests. Prior to conducting any test Contractor must confirm that the line and manholes are free of all debris. If flushing with water is used the flushing velocity within the pipe shall be a minimum of 2.5 feet per second.

Test pressures for all pressure pipe (steel, ductile iron, PVC, HDPE) shall be 100 psig or 1.5 times pipe system nominal design operating pressure, which ever is greater.

Test time shall be a minimum 0.5 hours for above ground system and 2 hours for buried systems unless specified otherwise. All water service lines shall be flushed with water after making connection to the main and shall be witnessed by the Engineer's representative prior to backfilling.

Record of Testing: The Contractor or duly authorized representative shall maintain a written record showing the results of testing for each section of line. The minimum following information will be included:

1. Name of Owner, Engineer, and Contractor performing the work
2. Identification of the section being tested.
3. Date of the test.
4. Length of the section being tested and the nominal diameter of the pipe.
5. Test pressure psig.
6. Duration of the test in hours.
7. Amount of water added during the leakage test in gallons.
8. Total number of leaks on the section being tested.
9. Date leaks were repaired.
10. Brand name of pipe used.
11. Pressure rating (SDR and PSI).
12. A similar set of data for any section of line, which is retested.

The Engineer will furnish a testing form for use by the Contractor. It shall be completed and furnished to the Engineer prior to final inspection.

Above Ground Pressure Pipe: Conduct the tests on exposed piping after the piping has been completely installed, including all supports, hangers, and anchors.

Buried Pressure Pipe: Conduct final acceptance tests on buried pressure piping that is to be hydrostatically tested after the trench has been completely backfilled. The Contractor may, if field conditions permit, as determined by the Engineer, partially backfill the trench and leave the joints open for inspection and conduct an initial service leak test. The acceptance test shall not, however, be conducted until all backfilling has been completed.

Thrust blocking must obtain sufficient strength to withstand the thrust pressure of pipe before performing hydrostatic test. If high early cement is used, the test may be performed 5 days after

pouring the thrust blocks. If the testing indicates a failure due to insufficient thrust blocking, such blocking shall be replaced with new thrust blocking as necessary to properly withstand the pipe thrust at no additional cost to the Owner

When testing cement-mortar lining piping, slowly fill the section of pipe to be tested with water and allow to stand for 24 hours under slight pressure to allow the cement-mortar lining to absorb water.

Positive Pressure Hydrostatic Leak Tests:

Equipment: Furnish the following equipment for the hydrostatic tests:

Amount	Description
2	Graduated containers
2	Pressure gauges
1	Hydraulic force pump
	Suitable hose and suction pipe as required

Procedure For Exposed Pressure Piping: Water shall be used as the hydrostatic test fluid unless otherwise specified. Test water shall be clean and shall be of such quality as to minimize corrosion of the materials in the piping system. Vents at all high points of the piping system shall be opened to purge air pockets while the piping system is filling. Venting during the filling of the system also may be provided by the loosening of flanges having a minimum of four bolts or by the use of equipment vents. All parts of the piping system shall be subjected to the test pressure specified. The hydrostatic test pressure shall be continuously maintained for a minimum time of 0.5 hours and for such additional time as may be necessary to conduct examinations for leakage. Examination for leakage shall be made at all joints and instances at pump or valve packing, shall show no visual evidence of weeping or leaking. Any visible leakage shall be corrected at the Contractor's sole expense.

Procedure For Buried Pressure Piping: Expel all air from the piping system prior to testing and apply and maintain the specified test pressure by means of the hydraulic force pump. Valve off the piping system when the test pressure is reached and conduct the pressure test for 2 hours, reopening the isolation valve only as necessary to restore the test pressure. The pump suction shall be in a barrel or similar device, or metered so that the amount of water required to maintain the test pressure may be measured accurately. This measurement represents the leakage, which is defined as the quantity of water necessary to maintain the specified test pressure for the duration of the test period. No pipe installation will be accepted if the leakage is greater than the number of gallons per hour as determined by the following formula:

$$L = \frac{ND(P)^{1/2}}{7400}$$

In the above formula:

L = Allowable leakage, in gallons per hour
N = Number of joints in the length of pipe tested
D = Nominal diameter of pipe, in inches
P = Test pressure during the leakage test, in pounds per square inch

The contractor shall correct any leakage greater than the allowance determined under this formula at the Contractor's sole expense. Visible leakage shall be corrected regardless of the allowance determined by the above formula.

Potable Water Disinfection

Potable water pipelines shall be disinfected before placing in service. Disinfecting procedures shall conform to AWWA C601, as hereinafter modified or expanded.

Flushing: Before disinfecting, flush all foreign matter from the pipeline including all service piping. Provide hoses, temporary pipes, ditches, etc. as required to dispose of flushing water without damage to adjacent properties. Flushing velocities shall be at least 2.5 feet per second. For larger diameter pipe where it is impractical or impossible to flush the pipe at 2.5 feet per second velocity, clean the pipeline in place from the inside by brushing and sweeping, then flush the line at a lower velocity.

Disinfecting Mixture: Disinfecting mixture shall be a chlorine-water solution having a free chlorine residual of 40 to 50 parts per million (ppm). The disinfecting mixture shall be prepared by injecting either: (1) a liquid chlorine gas-water mixture; (2) a dry chlorine gas; or (3) a calcium or sodium hypochlorite and water mixture into the pipeline at a measured rate while fresh water is allow to flow through the pipeline at a measured rate so that the combined mixture of fresh water and chlorine solution or gas is of the specified strength.

The liquid chlorine gas-water mixture shall be applied by means of a standard commercial solution feed chlorinating device. Dry chlorine gas shall be fed through proper devices for regulating the rate of flow and providing effective diffusion of the gas into the water within the pipe being treated. Chlorinating devices for feeding solutions of the chlorine gas or the gas itself must provide means for preventing the back flow of water into the chlorine cylinder.

If the calcium hypochlorite procedure is used, first mix the dry powder with water to make a thick paste and then thin to approximately a 1 percent solution (10,000 parts per million). If the sodium hypochlorite procedure is used, dilute the liquid with water to obtain a 1 percent solution. The following proportions of hypochlorite to water will be required:

Product	Quantity	Water
Calcium Hypochlorite (commercial products known as HTH, Perchloron, Pittchlor) at a 65 – 70 percent solution of chlorine	1 pound	7.5 gallons
Sodium Hypochlorite (commercial products as liquid laundry bleach, Clorox, Purex) at a 5.25 percent solution of chlorine.	1 gallon	4.25 gallons

Point of Application: Inject the chlorine mixture into the pipeline to be treated at the beginning of the line through a corporation stop or suitable tap in the top of the pipeline. Clean water from the existing system or another source shall be controlled so as to flow slowly into the newly installed piping during the application of chlorine. The rate of chlorine mixture flow shall be in such proportion to the rate of water entering the pipe that the combined mixture shall contain 40 to 50 ppm of free available chlorine. Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water. Use check valves if necessary.

The amount of one (1) percent chlorine water solution required to give 50 parts per million chlorine in 1,000 feet of various size water mains is as follows:

Pipe Diameter, inches		Volume Of Water, gallons
6		8
8		15
10		20
12		30
16		52
20		80
24		120
30		180

Retention Period: Treated water shall be retained in the pipeline long enough to destroy all non-spore-forming bacteria (minimum 24 hours). At the end of the retention period, the disinfecting mixture shall have a strength of at least 10 parts per million of chlorine.

Operate all valves, hydrants, and other appurtenances during disinfection to assure that the disinfecting mixture is dispersed into all parts of line, including dead ends, new services, and similar areas that otherwise may not receive the disinfecting solutions.

Do not place concentrated quantities of commercial disinfectants in the line before it is filled with water.

After chlorination, flush the water from the permanent source of supply until the water through

the line is equal to the chemical and bacteriological content of the permanent source of supply.

Disposal of Disinfecting Water: Dispose of disinfecting water in an acceptable manner that will protect the public and publicly used receiving waters from harmful or toxic concentrations of chlorine. Do not allow disinfecting water to flow into a waterway without adequate dilution or other satisfactory method of reducing chlorine concentrations to a safe level. Contractor shall confirm from Mississippi Department of Environmental Quality that a permit will or will not be required to discharge disinfecting water. This determination must be submitted to the Engineer in writing.

After completion of the disinfection procedure the Contractor shall arrange for at least two consecutive rounds of samples (24 hours between samples) to be collected from each sample location by the Mississippi State Department of Health, Consulting Engineer or Owner for bacteriological examination. At a minimum sample locations will include every dead-end line and every major looped line. Additional locations for sampling may be required by the Engineer. No chlorine shall be present which is a result of pipe line disinfection. Two consecutive samples with no coliform bacteria per 100 ml and no confluent growth indicated shall constitute a satisfactory disinfected system when analyzed by the Mississippi Department of Health Laboratory or a laboratory certified by the Mississippi State Department of Health.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1672 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: Site Conditions - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following when bidding this project.

Subsurface Information. Subsurface investigations have not been made. The Contractor shall provide any investigation as required to properly accomplish the work.

Land Monuments. The Contractor shall preserve all existing land monuments encountered. If monuments interfering with the proposed construction are encountered during the work, the Contractor shall notify the Engineer immediately and allow two working days for arrangements to be made for reference and later replacement. All monument replacement shall be at the expense of the Contractor and performed by a land surveyor licensed in the State of Mississippi.

Existing Utilities. Known utilities and structures adjacent to or encountered in the work are shown on the drawings. The locations shown are taken from existing records and it is expected that there may be some discrepancies and omissions in the locations and quantities of utilities and structures shown. Those shown are for the convenience of the Contractor only, and no responsibility is assumed by either the Owner or the Engineer for their accuracy or completeness.

Prior to move-in and in conjunction with the placement of any control points, the Contractor shall verify the location of utilities, including depth and report this information to the Engineer. Conflicts, if any, will be resolved prior to move-in.

No attempt has been made to locate services whether water, sewer, or gas. Location and repairs to services damaged by the Contractor are considered incidental to construction and the cost should be included in the applicable unit price or lump sum bid items.

In the event utilities and/or structures are encountered that are not shown on the drawings, adjustments to the Contract will be considered based on the severity of the conflict and the work in progress. The Contractor shall excavate areas where latent components may materialize some time ahead of construction in order to allow the MDOT/Owner to institute appropriate changes and to mitigate any delays.

Responsibility For Utility Properties And Service. Neither the Owner or MDOT shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.

The Contractor shall at all times provide unobstructed access to fire hydrants, underground conduit,

manholes and water or gas valve boxes.

Where the Contractor's operations could cause damage or inconvenience to railway, telegraph, telephone, television, power, oil, gas, water, sewer, irrigation, or other systems adjacent or near the work, operations shall be suspended until the Contractor has made all arrangements necessary for the protection of these utilities and services and the Engineer has been notified of these arrangements.

The Engineer and all utility offices that are affected by the construction operation shall be notified at least seven (7) days in advance of commencing construction operations. The Contractor shall not expose any utility without first obtaining permission from the appropriate agency and notifying the Engineer of this permission. Once permission has been granted, locate and, if necessary, expose and provide temporary support and/or relocation in advance of operations.

All utility poles shall be protected from damage. If interfering utility poles, guy wires or anchors are encountered, the Contractor shall notify the Engineer and the appropriate utility company as soon as possible and at least 48 hours in advance of construction operations to permit the necessary arrangements for protection or relocation of the interfering poles.

The Contractor shall be solely and directly responsible to the Owner and operators of such utility properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage that may result from the construction operations under the Contract.

In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, the proper authority shall be promptly notified. The Contractor shall cooperate with said authority in restoration of service as promptly possible and bear all costs of repair. In no event shall interruption of any water or utility service be allowed unless prior approval is granted by the Owner of the utility.

The Contractor shall replace, at no additional cost to the State or Owner, any and all other existing utilities or structures removed or damaged during construction, unless otherwise provided for in the contract documents, or ordered by the Engineer.

Relocations Required By Construction. Where existing utilities, structures, or other physical obstructions block or impede construction under this Contract, they shall be permanently relocated. Such relocations shall be considered as required by construction. All other relocations shall be treated in accordance with **Utility Interferences Incidental To Construction** below.

The Contractor shall give immediate notice to the Engineer and the Owner of the utility when a physical conflict is determined to exist. The actual relocation will be accomplished by the Owner of the utility, structure or other physical obstruction unless otherwise specified in the contract documents. Any delays resulting from the required relocations of the utilities are the responsibility of the Contractor.

Utility Interferences Incidental To Construction. Where existing utility lines or structures are

so located as to interfere with the Contractor's method of performing the work, but do not reasonably block or impede construction, under the Contract, any modification, alteration, or relocation of interfering utility, either permanent or temporary, shall be accomplished at the expense of the Contractor.

The Contractor shall give immediate notice to the Engineer and the Owner of the utility when an interference is determined to exist and shall obtain approval to relocate such utility or to discontinue service from the Engineer and the Owner of the utility. The Owner of the utility shall have the right to do all work required to discontinue, relocate, and replace interfering utilities and charge the Contractor for all costs thereof. When approved by the Engineer and the Owner of the utility, all work required to discontinue, relocate and replace interfering utilities may be done by, or arranged for, by the Contractor. All such discontinuance, relocation, and replacement shall be accomplished in accordance with all requirements of the Owner of the utility.

When notified by the Contractor that an interference or conflict has been determined to exist, the Engineer will determine whether such interference shall be considered as required by construction or as incidental to construction.

Interfering Structures. **N**ecessary precautions shall be taken to prevent damage to existing structures where on the surface, above ground, or underground. An attempt has been made to show major structures on the drawings. While the information has been compiled from the best available sources, its completeness and accuracy cannot be guaranteed, and it is presented as a guide to avoid known possible difficulties.

Existing structures shall be protected from damage, whether or not they lie within the right-of-way or the limits of the easements obtained by the Owner. Where existing structures are damaged during the work, they shall be restored, at no additional cost to MDOT/Owner, to at least their original condition and to the satisfaction of the Engineer.

The Contractor may, with the approval of the Engineer and without additional compensation, remove and replace in a condition as good as or better than original, any small interfering structures such as fences, mail boxes and signposts that interfere with the Contractor's operations.

Field Relocation. During the progress of the work, minor relocations of the work may be necessary. Such relocations shall be made only with the agreement of the Engineer. If existing structures are encountered that will prevent construction as shown, notify the Engineer before continuing with the work in order that the Engineer may make such field revisions as necessary to avoid conflict with the existing structures. If the Contractor proceeds with the work despite this interference, the Contractor shall be responsible for any damage that may occur. The Engineer and Owner shall not be responsible for delays related to field relocations of existing structures unless approved by the Engineer and Owner.

Easements. Where part of the work is located on private property, easements are shown. The Contractor shall determine the adequacy of easements and shall obtain additional easements, if required.

Upon completion of work in any Owner provided easement area, the surface shall be restored as required and to the satisfaction of the Engineer. Restoration shall begin within 14 days following completion of construction in the easements. The restoration shall include, at minimum: final grading and grassing; limbing; fence repairs and replacement; sidewalk; curb; and drive repairs; etc. Failure to comply with this provision shall be considered reason to withhold a portion or all monies due the Contractor.

The Contractor shall confine construction operations to within the easement limits or make special agreement with the property owners for any additional area required and provide two copies of written verification to the Engineer.

Before final payment will be authorized, the Contractor shall furnish the MDOT/Owner with written releases from property owners where special agreements have been made by the Contractor, or when the operations, for any reason, have not been kept within the limits of easements obtained by the MDOT/Owner.

In the event the Contractor is unable to secure the written releases required in the above paragraph, the Contractor shall inform the Engineer of the reasons for his failure to do so. The Engineer will examine the site and will direct the Contractor to complete any work that may be necessary to satisfy the terms of the easement or special agreement. Should the Contractor refuse to do the work, the MDOT/Owner reserves the right to have it done by separate contract and deduct the cost of same from monies due the Contractor, or the MDOT/Owner may require the Contractor to furnish a bond in a sum satisfactory to the MDOT/Owner to cover any legal claims for damages. When the MDOT/Owner is satisfied that the work has been completed in accordance with the terms of the easement or special agreement, the requirement of obtaining the statement may be waived if the Contractor's failure to obtain such statement is due to the grantor's refusal to sign and this refusal is not based upon any legitimate claims that the Contractor has failed to fulfill the terms of the easement or special agreement, or if the Contractor has overdue hardship in contacting the grantor.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1673 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: Manufacturer's Services - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following when bidding this project.

This specification addresses the services of manufacturers' representatives and special coordinating services required of the Contractor that shall apply during construction, facilities startup, and training of the Owner's personnel for facilities operation.

The Contractor shall inform all subcontractors, and manufacturers of the requirements herein and include the following services in the costs for the work specified in the contract documents. Where a minimum amount of time is stated in the specifications for manufacturers' services, any additional time required to perform the specified services shall be at no additional cost to the MDOT/Owner.

Definitions.

Construction Period: The time period from the Contractor's equipment purchase order date to the date of certification by the manufacturer that the equipment is installed correctly and is ready for startup and operation.

Startup Period: Coordinated operation of the facilities by the Contractor, subcontractors, the Owner's operating personnel, and manufacturer's representatives for equipment items and systems.

Startup of the entire facility or any portion thereof shall be considered complete when, in the opinion of the Engineer, the facility or designated portion has properly operated for 14 continuous days without significant interruption. This 14-day period is in addition to any training, functional, or performance test periods specified elsewhere.

Operating Period: Starts when facility has been successfully started up as defined under "Startup Period".

Man-day: Equal to one is defined as equal to one person for eight hours straight time, exclusive of Saturday, Sunday or holidays. Consecutive days include the five work days in a week, exclusive of Saturdays, Sundays, and holidays.

Contractor must receive approval from the Engineer prior to implementing any Engineer specified, manufacture's representative man-day requirements. All requests for prior approval shall: (1) be in writing, (2) be submitted not less than 10 days prior to the providing of the subject

services, (3) state the service to be provided, and (4) state the reason(s) why the timing of the service is appropriate. Requests made to the Engineer less than 10 days prior to the providing of manufacturers' services may not receive consideration and response prior to the times the services are provided. The Contractor is advised that the Engineer reserves the right to disapprove the above requests for fulfillment of the specified minimum man-day requirements. All responses to the Contractor, approving or disapproving request for prior approval, will be in writing. Visits of manufacturers and their representatives to the jobsite or training classroom without prior approval as provided herein will not act to fulfill the specified minimum man-day requirements.

Construction Period. A competent and experienced technical representative shall represent the manufacture of each piece of equipment and/or system for as many days as may be necessary to resolve assembly or installation problems at the worksite which are attributable to, or associated with, the equipment and/or system furnished. This requirement applies to manufacturers of all equipment furnished, whether or not specifically set forth in the specifications.

Where a manufacturer's certificate of proper installation is called for in the specifications, the manufacturer's technical representative shall provide a certificate stating that the equipment and/or system has been:

(1) installed in accordance with the manufacturer's recommendation,
(2) has been inspected by a manufacturer's representative,
(3) has been serviced with the proper initial lubricants,
(4) all applicable safety equipment has been properly installed, and
(5) the proper electrical and mechanical connections have been made.

The manufacturer's certificate of proper installation shall be submitted to the Engineer prior to beginning the startup period.

Where functional testing or run testing is called for in the specifications, the manufacturer's representative shall assist with the initial test which shall include checking for proper rotation, alignment, speed, excessive vibration, and noisy operation. Initial equipment and/or system adjustment and calibration shall be performed in the presence of and with the assistance of the manufacturer's representative. The manufacturer's certificate of proper installation shall include the statement that proper adjustments have been made and that the equipment or system is ready for startup and operation. The Contractor, as applicable to the equipment furnished, shall state in writing that all necessary hydraulic structures, piping systems, and valves have been successfully tested; that all necessary equipment system and subsystems have been checked for proper installation, started, and successfully tested to indicate that they are all operational; that the systems and subsystems are capable of performing their intended functions; and that the facilities are ready for startup and intended operations.

Startup Period. The Contractor shall designate and provide one or more persons to be responsible for coordinating and expediting the startup duties. The person or persons shall be present during all pre-startup meetings and shall be available to the Owner's personnel at all times during the startup period. When startup has commenced, the Contractor shall schedule the

remaining work so as not to interfere with or delay the completion of startup. The Contractor shall support the startup activities with adequate staff to prevent delays, process upsets, etc.

The Contractor shall supply and coordinate the specified manufacturer's services for the startup period.

Equipment startup and field performance tests shall be conducted on all equipment, systems, and subsystem. These tests shall meet all requirements specified in other sections of the contract documents. The Contractor shall be responsible for adjustments, repairs, and corrections necessary to complete facility startup.

After the facility is operating, the Contractor shall continue the performance testing of those items of equipment, systems, and subsystems which could not be or were not adequately or successfully tested prior to the facility startup.

The Owner will provide and pay for the necessary fuel, chemicals, and other consumables to be used during startup. The Contractor shall coordinate the procurement and delivery of such items with the Owner.

Where performance testing and startup services are called for in the specifications, or when technical assistance is necessary due to any malfunction of the equipment or system furnished, the manufacturer's representative shall provide such services. The manufacturer's representative shall also conduct and/or assist with final performance and demonstration testing, as required by the specifications. These services shall continue until such times as the applicable equipment or system has been successfully tested for performance and has been accepted by the Owner for full-time operation.

Training Of Owner's Personnel. Where training of Owner's and operating personnel is called for in the specifications, the manufacturer's representative shall provide detailed instructions to the Owner's personnel for operation and maintenance of the specified equipment. These training services shall include pre-startup classroom and onsite equipment instruction and/or post startup classroom and onsite equipment instructions, as stated in the specifications.

The Contractor shall designate and provide one or more persons to be responsible for coordinating and expediting the training duties. The person or persons shall be present at all training coordination meetings with the Owner.

The Contractor shall submit to the Owner an Installation Complete Schedule to be used by the Owner for scheduling the training of the Owner's operating personnel by the equipment manufacturers. This schedule shall list the estimated completion dates for the installation of all equipment and systems requiring the services of manufacturer's representatives, as stated in the specifications.

The Installation Complete Schedule for each equipment item or system shall be submitted not less than 21 days prior to the time that the associated equipment is installed and in a condition suitable for use in training the Owner's personnel.

The Contractor shall coordinate the pre-startup training periods with Owner operating personnel and manufacturers' representatives. All pre-startup training shall be completed 14 days prior to actual startup.

Where post startup training is called for in the specifications, the Contractor shall supply and coordinate the specified manufacturer's services and Contractor personnel for post startup training of the Owner's operating personnel.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1674 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: Structural Concrete And Reinforcing - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following when bidding this project.

The following materials and construction procedures will be required during the construction of concrete related utility items of work.

MATERIALS

Nonrewettable bonding compound shall be a polyvinyl acetate type such as Euco Weld by the Euclid Chemical Company or an approved equal.

Epoxy adhesive compound shall be a 2-component, 100 percent solids, 100 percent reactive compound suitable for use on dry or damp surfaces, Euco Epoxy Number 452MV, Number 620 by the Euclid Chemical Company, Sikadure Hi-Mod by the Sika Chemical Company, or an approved equal.

When repair topping of thicknesses of 1/16" to 1/2", use a latex and microsilica modified cementitious mortar designed for use as a floor or deck topping such as Thin Top Supreme by the Euclid Chemical Company, or an approved equal.

When repair topping of thicknesses of 1/2" to 2", use a latex and microsilica modified cementitious mortar designed for use as a floor or deck topping such as Concrete Top Supreme by the Euclid Chemical Company, or an approved equal.

Vapor barrier shall be a 6-mil clear polyethylene film or fabric reinforced plastic film, type recommended for below grade applications.

Synthetic fibers shall be a monofilament or fibrillated polypropylene fibers for secondary reinforcing of concrete members. Product shall be Fiberstrand by the Euclid Chemical Company, Fibermesh, by Fibermesh, Inc., or an approved equal having a UL rating.

Patching mortar shall be a free-flowing polymer-modified cementitious coating equivalent to Euco Thin Coat by the Euclid Chemical Company, or an approved equal.

Polyethylene film shall meet the requirements of ASTM Designation: C171, 4 mil thick, clear, white opaque color, or black.

Absorptive mats shall meet the requirements of ASTM Designation: C171, cotton fabric or burlap-polyethylene, with a minimum 8-ounce per square yard, bonded to prevent separation during handling and placing.

Joint primer shall be a 2-component penetrating liquid resinous primer, for use with urethane and epoxy sealants such as U-Seal Joint Sealant 3203 Primer by Burke, or an approved equal.

Backup material shall meet the requirement of ASTM Designation: D1056, round closed cell foam rod; oversized 30 to 50 percent larger than joint width.

Waterstops shall be dumbbell or centerbulb type and shall be made from extruded PVC (polyvinyl chloride) with a minimum width of six inches, unless noted otherwise.

Joint filler shall meet the requirements of ASTM Designation: D994, bituminous impregnated fiberboard, 1/2-inch and 1-inch thick, or meet the requirements of ASTM Designation: D1751; asphalt impregnated cork, with asphalt saturated glass-fiber felt liners; 1/2-inch thick.

Joint sealants shall conform to the provisions of ACI 504R.

Expansion and isolation joints shall be self-leveling, 2-component polyurethane sealant such as U-Seal Joint Sealant 3202 Hand-Mix, Non-Sag by Burke, or an approved equal.

Control and construction joints shall be corrosion resistant, 2-component resin hardener for joints cut with Soff-Cut saws such as Edge Pro 50 by Metzger McGuire Co., Euco 700 by the Euclid Chemical Company, or an approved equal.

Steel, ironwork, pipe sleeves, inserts, wood blocking, nailer strips, isolation joint material, construction joint dowels, and other fixtures as shown, specified, or required to be built into concrete shall be placed accurately and secured against displacement during concreting. Sufficient time between erection of forms and placing concrete shall be given to the various trades to permit proper installation of their work. The installation of anchors, inserts, and sleeves for electrical, mechanical, plumbing, heating, and ventilation work shall be subject to the inspection and approval of the supervisor of the particular trade or trades involved before concrete is placed.

The installation of and tolerances for anchor bolts and embedded items shall comply with Paragraph 7.5 of the AISC Code of Standard Practice. Anchor bolts shall be located within 1/8 of an inch of design position.

Plate inserts shall be located within plus or minus 1/4 of an inch horizontally or vertically.

Bolt threads shall be protected against damage and concrete; cap or plug sleeves to keep out water, concrete, and debris.

Tack welding of anchor bolts, reinforcing steel, and embedments is not permitted unless noted on drawings.

INSTALLATION

Top surface of underground duct envelopes shall be colored by sprinkling colored iron oxide powder. Red for underground electrical ducts. Yellow for underground instrument air line ducts.

When separate floor toppings are called for, place the floor toppings to required lines and grade after the concrete has cured. Screed toppings level or sloped on the drawings.

Floor slab tolerance shall conform to Chapter 7, Section 7.15 of ACI 302.1R unless otherwise noted on the design drawings.

When ACI 302.1R is used, the Composite F-numbers for flatness and levelness shall be no less than the following for troweled surfaces:

F(f) - 20
F(l) - 15 and for elevated slabs

Local F-numbers shall be no less than the following:

F(f) - 15
F(l) - 10

If a vapor barrier is called for on the plans and if sharp backfill may puncture the barrier, a sand layer of three inches thick shall be placed as a cushion. Vapor barrier shall be lapped six inches at joints and seal with duct tape. Vapor barrier shall be carefully fitted around service openings.

Concrete slab surfaces shall be finished in accordance with ACI 302.1R.

Interior concrete floor slabs shall be finished in accordance with ACI 302.1R for Class 5 (industrial) floors unless otherwise shown on the drawings.

A "floated finish" shall be placed at equipment bases and exterior slabs according to ACI 301, Section 11.7.2. A "broom finish" shall be provided to equipment bases, exterior slabs, stairs, steps, ramps, and walks.

Formed concrete surfaces shall be finished in accordance with Chapter 10 of ACI 301, unless otherwise noted on the design drawings.

Unless otherwise specified or permitted by the Engineer, tie holes, honeycombs, and other concrete surface defects shall be repaired in accordance with Chapter 9 of ACI 301 and alternate methods in 9.2.2 ACI 301, as soon as practicable after form removal at such times and in such manner as shall not delay, interfere with, or impair the proper curing of the fresh concrete. The Engineer shall be notified before proceeding with repair if the defect is greater than five inches deep and larger than 200 square inches in surface area, or if the depth is over 1/3 the thickness of the member and greater than six inches in any other direction.

Prepackaged grouts and patching compounds may be used after Engineering approval is obtained. As an alternate, a patching mortar similar to the concrete mix minus the coarse aggregate can be used. Do not use more than 1 part cement to 2 1/2 parts sand by damp, loose volume. The color shall match the surrounding area.

High points shall be ground down. Low points shall be raised by using the specified underlayment compound or repair topping if the areas are exposed.

Critical slab areas that must be replaced if out-of-tolerance are identified on drawings.

Out-of-tolerance areas that are identified on drawings shall be demolished and replaced.

Demolition and replacement plan shall be submitted to the Engineer for review and concurrence before demolition.

Replacement slab shall meet tolerance requirements as shown on drawings for critical slab areas.

Freshly deposited concrete shall be protected from premature drying and excessively hot or cold temperatures and shall be maintained with minimal moisture loss at a relatively constant temperature for the period of time necessary for the hydration of the cement and proper hardening of the concrete. Curing shall conform to the requirements in Chapter 12, ACI 301.

The manufacturer's recommendations for curing and sealing shall be followed when hardeners, metallic, or mineral aggregate toppings are specified on the design drawings.

The time during which concrete surfaces are in contact with wood or metal forms may be considered as curing time. Wood forms shall be maintained in a moist condition until removal. After form removal, the concrete shall be cured until the end of the curing period by one of the methods of concrete surfaces not in contact with forms. Moist wood forms in contact with concrete shall not be considered as curing for hydraulic structures. Curing time shall commence as soon as the wall forms have been loosened and sprinkling has begun. Wall forms shall be loosened between 24 and 48 hours after concrete placement and sprinkling begins. Wood forms shall be kept moist until the forms are loosened and the curing procedure begins.

Exposed concrete floor surfaces shall be sealed and dustproofed. Where the concrete is cured by using a liquid membrane curing compound, this sealing and dustproofing can be a part of the curing process by applying a second coat of the curving compound, provided a suitable compound is used. Where some other curing method is used, the concrete surface shall be coated with a liquid sealing and dustproofing compound. Apply compounds in accordance with the manufacturer's instructions.

Liquid membrane curing compounds that also seal and dustproof may be used on exposed concrete floors. Do not use membrane forming compounds on surfaces to receive bonded treatments, tiles, adhered finishes, paint, epoxy toppings, tiles, and additional concrete.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1675 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: Steel and Metal Fabrications - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following when bidding this project.

GENERAL

The fabricator of steel and metal components for utilities shall have no less than five years of experience in steel and metal fabrications.

Welding procedures and personnel shall be qualified in accordance with the requirements of AWS D1.1 prior to commencement of work.

Materials shall be new, in good condition at the time of fabrication, and of such other qualities to satisfy the requirements of this specification.

MATERIALS

Anchor Bolts: ASTM A36 or ASTM A307 Grade A, with cut threads, ASTM A563 Grade A nut and ASTM F436 hardened steel washer.

Checkered Floor Plate: Inland-Ryerson (Inryco) 4-way safety plate, regular quality carbon steel, or approved equal, 1/4 of an inch thick excluding height of the raised pattern, unless noted different on Plans.

Expansion Anchors: Wedge-expansion stud type meeting requirements of FS FF-S-325, Group II, Type 4, Class 1 for concrete expansion anchors; Hilti Kwik bolts or Hilti Hit renovation anchors, C-10, by Hilti Fastening Systems; Red Head wedge anchors by Phillips Drill; Trubolt wedge anchor by Ramset Fastening Systems; Rawl-Stud wedge anchor by Rawlplug Company; or an approved equal.

Grating: Welded steel, plain surface, as manufactured by IKG Industries, or approved equal, 1-1/4 by 3/16 bearing bars at 1-3/16 inches O.C., cross bars at 4 inches O.C. Where indicated on the Plans, the grating shall be cast iron.

Grating Clamps: Grating clamps shall be reusable type, as manufactured by E.P.I., Pittsburgh, PA; G-Clips, as manufactured by Gratins Specialty Co., New Orleans, LA; Grate-Fast, as manufactured by Struct-Fast, Inc., Wellesley Hills, MA; or an approved equal. The entire assembly is to be galvanized or stainless steel, as indicated on the Plans. Clamps shall be of the size required for the thickness of grating.

Handrail Pipe: ASTM A53, Type S, Grade B, Schedule 40 (standard weight).

High Strength Bolts: ASTM A325 heavy hex head bolt with hardened washers and heavy hex nut according to specification for structural joints using ASTM A325 or A490 bolts.

Miscellaneous and Special Steel Shapes: ASTM A36.

Pipe: Conform to ASTM A53, Type S, Grade B, Schedule 40 (standard weight).

Plain Bolts, Nuts, and Washers: ASTM A307 Grade A, with ASTM A563 Grade A nut and ASTM F436 hardened steel washer.

Stair Treads: Stair treads shall be metal serrated grating with perforated or checker plate standard nosings. The tread shall be fabricated from serrated, welded grating having 1-1/4 inches by 3/16 of an inch bearing bars at 1-3/16 inch centers, and cross bars at 4-inch centers. A standard nonslip nosing shall be provided on the grating at the head of stairs

Tubing: ASTM A500, Grade B.

Welding Electrodes: E70XX classification and conform to AWS A-5.1.

Welded Studs: ASTM A108, grade 1015 cold drawn steel, automatic weld type.

FABRICATION

Bollards: Pipe six (6) inches in diameter by seven (7) feet long, placed 3'- 6" deep in concrete and filled with concrete.

Ceiling Channels: Ceiling channels and rods for ceiling hung toilet partitions shall be 8-inch channel (C8 x 11.5) with 3/8 of an inch hanger rod to structure at center of each pilaster, unless shown otherwise on Plans.

Channel Door Frames: Fabricate from standard shapes with bent strap anchors at 16 inches on centers for frames in masonry walls, and clip angles at toe of frame drilled for anchoring to slab.

Corner Guards: Fabricate from 4-inch by 4-inch by 1/4 of an inch angle, with 1/2-inch diameter by 4-inch nelson stud anchors at 16 inches on centers (maximum), unless shown otherwise on Plans.

Edge and Curb Angles: Fabricate from steel angles of sizes shown with 1/2-inch diameter by 4-inch Nelson stud anchors at 16 inches on center (maximum).

Floor Plate Assemblies: Fabricate from rolled steel shapes and floor plate as shown, providing for bolted connections unless otherwise shown and approved on shop drawings. Floor plate shall be welded to steel supporting members, except floor plates indicated as removable on the Plans. Removable floor plates shall be secured with flush, counter-sunk bolts. The bolts shall be supplied by the fabricator with 5 percent extra to cover losses. Joints in floor plates shall

typically occur over supports. Openings dimensioned on the Plans shall be provided by the Fabricator. Undimensioned openings shall be cut in the field by others. Drain holes 9/16-inch diameter shall be provided for each 20 square feet of area, with a minimum of one hole per panel. Floor plates used in Labs for trench covers shall be Balco Metalines Aluminum Trench Covers, Type TCT. Width shall be as shown on the drawings.

Grating Assemblies: Fabricate from rolled steel shapes and grating as shown, providing for bolted connections unless otherwise shown and approved on shop drawings. Grating shall be removable unless otherwise specified on the design drawings. Where grating is specifically indicated on the drawings as removable, the maximum weight of one section of grating shall be limited to 150 pounds. All other sections shall be limited to a maximum weight of 300 pounds. Grating shall be secured to the supporting steel beams by removable grating clamps. Two clamps per panel shall be used at each support with a minimum of four per panel. The clamps shall be supplied with five percent extra to cover losses. Clamp installation shall be done by the Supplier. Joints in floor panels shall typically occur over supports. Notching of bearing bars at supports to maintain elevation is not permitted. Openings dimensioned on the design drawing shall be cut in the shop. Undimensioned openings shall be cut in the field.

Handrails: Comply with local governing codes; fabricate from pipe as detailed, with closed ends, heated and bent smoothly without distortion. Return ends of wall mounted rails to wall. Provide smooth continuous transition around turns and bends. Miter, weld, and grind smooth where exposed.

Horizontal Load: Must withstand a horizontal concentrated 200-pound load applied at any point and in any direction with a top rail height of 42 inches.

Toe Plate: Provide bar 4 inches by 1/4 of an inch at platform handrails.

Balusters and Posts: Fabricate from pipe. Refer to Plans for maximum spacing.

Brackets: Julius Blum #378 or approved equal.

Removable Railings: Provide means of removal by screwdriver or allen wrench.

Lintels: Fabricate as detailed with angles, or angles and rolled sections.

Metal Pan Stairs: Metal pan stairs shall be fabricated and installed in accordance with the Metal Stairs Manual as published by the NAAMM and governing codes.

Stringers and Framing: Conform to ASTM A36.

Treads and Risers: 14 gage hot rolled steel, depth for 1-1/2 inch concrete fill treads.

Landings: 10 gage, 1-1/2 inch deep galvanized metal deck for 1-1/2 inches concrete fill.

Safety Nosings: Type 232 for treads and Type 242 for landings, by Wooster products, Inc., or an approved equal. Color as selected.

Ships Ladders, Grating Tread Stairs, and Checkered Plate Tread Stairs:

Stringers and Framing: Conform to ASTM A36.

Treads and Landings: Checkered plate or grating as indicated on the drawings.

Nosings: Integral with treads and landings.

Safety Nosings: Type 120, three (3) inches wide, as manufactured by Wooster Products, Inc., or an approved equal

Construct steel frame assemblies of channels, plates, rolled sections, or combinations thereof to sizes shown. Accurately square, miter, butt or cope, and full-weld joints. Grind welds smooth that shall be exposed in finished work.

Galvanize fabrications, where noted.

Vertical Ladders: Fabricate with 3/4-inch diameter rungs 12 inches on center (maximum). Provide ladders with a basket guard and platform, where shown. Design and fabrication shall comply with OSHA latest standards.

PREPARATION

Existing conditions and work-in-place, upon which the erection or installation of other steel and metal fabrications is dependent, shall be examined. Defects which may influence completion and performance of the work shall have been corrected in accordance with the applicable specification. The erection or installation shall not proceed until such correction has been made. Commencement of erection or installation shall be construed as work-in-place being acceptable for satisfying the requirements of this specification.

ERECTION / INSTALLATION

Fabrications shall be erected plumb and true in accordance with shop drawings.

Erection Anchors: Select devices to meet substrate and loading conditions as approved by the Engineer.

Handrails:

Steel Substrates: Weld in accordance with Structural Welding Code, or bolt, as indicted on design drawings.

Concrete Substrates: Provide cast-in-place pipe sleeves, install with grout.

Channel Door Frames, Lintels, Ceiling Channels, Corner Guards: Install during erection of the associated wall or ceiling.

Vertical Ladders, Ships Ladders, Steel Stairs, Floor Plate Assemblies, Grating Assemblies: Install with approved anchors, securely bolted.

Bollards: Install in 4 feet deep by 2 feet diameter concrete, unless shown otherwise. Pitch concrete away from bollard.

Edge and Curb Angles: Install where shown before concrete placement.

Dissimilar Materials: In all cases where dissimilar metals such as aluminum, steel, and copper would join or be in contact, the metals shall be kept separated by suitable nonconducting gasket, or tape, or by painting the contact surface with a bitumastic coating or other approved insulating coating.

Care shall be taken to prevent the bitumastic from being damaged during installation, or from showing on permanently exposed surfaces.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1676 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: Utility Submittals

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following when bidding this project.

GENERAL

This notice to bidders outlines in general the items that the Contractor must prepare or assemble for submitting during the progress of the work. There is no attempt herein to state all of the procedures and requirements for each submittal. The Contractor's attention is directed to the individual specification sections in these Contract Documents which may contain in detail additional and special submittal requirements. The Engineer reserves the right to direct and modify the procedures and requirements for submittals as necessary to accomplish the specified purpose of each submittal. Should the Contractor be in doubt as to the procedure, purpose, or extent of any submittal, the Contractor should contact the Engineer.

ADMINISTRATIVE SUBMITTALS

The Contractor shall provide all of the submittals required in these Contract Documents.

The Contractor shall make required submittals promptly. Failure to comply with this requirement may result in the withholding of progress payments and make the Contractor liable for other prescribed action and sanctions.

The Contractor shall submit to the Engineer a copy of all correspondence relative to the Contract, transmitting notifications, reports and certifications. Costs for reproductions shall be considered incidental and included in the Contractor's Bid.

TECHNICAL SUBMITTALS

General

Requirements in this section are in addition to any specific requirements for submittals specified in other divisions and sections of these Contract Documents.

Data submitted shall have sufficient detail for determination of compliance with the Contract Documents.

Review of substitutions, schedules and lists of materials submitted or requested by the Contractor shall not add to the Contract amount, and any additional costs that may result therefrom shall be solely the obligation of the Contractor.

MDOT shall not be responsible for providing engineering or other services to protect the Contractor from additional costs accruing from such approvals.

MDOT is not precluded, by virtue of review, acceptance, or approval, from obtaining a credit for construction savings resulting from allowed concessions in the work or materials therefore.

No equipment or material for which listings, drawings, or descriptive material are required shall be fabricated, purchased, or installed until the Engineer has on hand copies of such approved lists and the appropriately stamped final shop drawings.

Submittals will be acted upon by the Engineer as promptly as possible, and in all cases within 20 days of receipt and returned to the Contractor. Delays caused by the need for resubmittals shall not constitute reason for an extension of Contract time.

Samples And Test Specimens

Where required in the specifications, and as determined necessary by the Engineer, test specimens or samples of materials, appliances, and fittings to be used or offered for use in connection with the work shall be submitted to the Engineer, at no additional cost to the State, with information as to their sources, with all cartage charges prepaid, and in such quantities and sizes as may be required for proper examination and tests to establish the quality or equality thereof, as applicable.

All samples and test specimens shall be submitted in ample time to enable the Engineer to make any tests or examinations necessary without delay to the work. The Contractor will be held responsible for any loss of time due to neglect or failure to deliver the required samples and test specimens to the Engineer, as specified.

The Contractor shall submit additional samples and test specimens as required by the Engineer to assure equality with the original approved sample and/or determination of specification compliance.

The Contractor shall cooperate with the laboratory personnel and provide access to the work to be tested. The Contractor shall notify the laboratory sufficiently in advance of operations to allow scheduling of tests. The Contractor shall furnish labor and facilities to obtain and handle samples at the site and to store and cure test samples as required.

Any testing laboratory utilized by the Contractor shall be an independent laboratory acceptable to the Owner and the Engineer and complying with the latest edition of the "Recommended Requirements for Independent Laboratory Qualification", published by the American Council of Independent Laboratories. The samples furnished and the cost of the laboratory services shall be at the expense of the Contractor.

Testing laboratories shall promptly notify the Engineer and the Contractor of irregularities or deficiencies of work which are observed during performance of services. Laboratories shall submit two copies of all reports directly to the Engineer and two copies to the Contractor. The samples furnished and the cost for the laboratory services shall be at the expense of the Contractor.

Laboratory tests and examinations not required by the Contract Documents will be made at no cost

to the Contractor, except that, if a sample of any material or equipment proposed for use by the Contractor fails to meet the specifications, the cost of testing subsequent samples shall be borne by the Contractor.

Sample items (fixtures, hardware, etc.) may be incorporated into the work upon acceptance of the items and when no longer needed by the Engineer for reference.

Certificates Of Compliance
A Certificate of Compliance shall be furnished for materials specified to a recognized standard or code prior to the use of any materials specified for the work. The Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The Certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and state that the materials comply in all respects with the requirements of the specifications. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the Certificate.

All material used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work that conforms to the requirements of the Contract Documents and any such material not conforming to the requirements will be subject to rejection whether in place or not.

The Engineer reserves the right to refuse permission for use of material on the basis of a Certificate of Compliance.

Shop Drawing Submittal Procedure
The Contractor shall submit to the Engineer for his review, five copies, including one reproducible copy of submittals larger than 11"x17" of shop drawings and catalog cuts for fabricated items and be accurate, distinct, and complete, and shall contain all required information, including satisfactory identification of items, units, and assemblies in relation to the applicable parts of these Contract Documents.

Unless otherwise approved by the Engineer, shop drawings shall be submitted only by the Contractor, who shall indicate by a signed stamp on the shop drawings, or other acceptable means, that the Contractor has checked and approved the shop drawings, and that the work shown is in accordance with the Contract Documents and has been checked for dimensions and relationship with other work. The practice of submitting incomplete or unchecked shop drawings for the Engineer to correct or finish will not be acceptable, and shop drawings which, in the opinion of the Engineer, indicate that they have not been checked by the Contractor will be returned to the Contractor for resubmission in the proper form.

When shop drawings have been reviewed, two sets of submittals will be returned to the Contractor appropriately stamped. If major changes or corrections are necessary, the shop drawings may be rejected and one set will be returned to the Contractor with such changes or corrections indicated, and the Contractor shall correct and resubmit the shop drawings in the same manner and quantity as

specified for the original submittal, unless otherwise directed by the Engineer. If changes are made by the Contractor, in addition to those requested by the Engineer, on the resubmitted shop drawings, such changes shall be clearly explained by the Contractor in a transmittal letter accompanying the resubmitted shop drawings.

The review of shop drawings and catalog cuts by the Engineer will not relieve the Contractor from responsibility for correctness of dimensions, fabrication details, and space requirements, or for deviations from the drawings or specifications, unless the Contractor has called attention to such deviations in writing by a letter accompanying the shop drawings and the Engineer approves the change or deviation in writing at the time of submission; nor shall review by the Engineer relieve the Contractor from the responsibility for errors in the shop drawings. When the Contractor does call such deviations to the attention of the Engineer, the Contractor shall state in his letter whether or not such deviations cause any deduction or extra cost adjustment.

The Contractor agrees that shop drawing submittals processed by the Engineer do not become Contract Documents and are not Change Orders; that the purpose of the shop drawing review is to establish a reporting procedure and is intended for the Contractor's convenience in organizing his work and to permit the Engineer to monitor the Contractor's progress.

Shop Drawing Requirements
Shop drawings referred to herein shall include shop drawings and other submittals for both shop and field fabricated items. The Contractor shall submit, as applicable, the following for all prefabricated or manufactured equipment, materials and systems:

- Catalog information and cuts.
- Installation or placing drawings for reinforcing steel or miscellaneous metals.
- Special handling instructions.
- Requirements for storage and protection prior to installation.
- List of all requested exceptions to the Contract Documents.

The submittals shall include satisfactory identification of items, units, and assemblies in relation to the specification section number.

Should the Contractor propose any item on his shop drawings, or incorporate an item into the work, and that item should subsequently prove to be defective or otherwise unsatisfactory, the Contractor shall, at his expense, replace the item with another item that will perform satisfactorily.

The Contractor shall maintain two sets of blueline full size prints on the jobsite, one set designed "Job Progress Drawings" and the second set designated "Record Drawings". The Contractor shall contemporaneously maintain both sets in a condition which reflects the current status of the construction work. Both sets shall be available to the Engineer for inspection and copying during the progress of the work. All markings shall be neatly performed with red pencil.

The Record Drawings will be marked up as required to show all deviations from the original contract drawings including changes resulting from minor field adjustments, field orders, and Contract modifications. Changes should be drawn after the construction work is completed and all new locations, dimensions, and elevations shall be shown. Where larger scale presentation is required, the Contractor shall prepare additional drawings and attach them to the appropriate blueline prints.

Each month, or as otherwise agreed, the Contractor shall submit to the Engineer a current listing and description of each deviation incorporated into the work since the preceding submittal. Failure to submit the record drawing information shall be cause for withholding any partial payment due the Contractor.

The Job Progress Drawings shall be marked up to show all work complete in weekly intervals, and the week the work is performed shall be shown.

At the completion of the work but before Substantial Completion, both the Job Progress Drawings and Record Drawings sets of blueline prints shall be submitted to the Engineer.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1677 **CODE: (SP)**

DATE: 07/10/2007

SUBJECT: Painting Utility Components

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following conditions when bidding this project.

GENERAL

Some component used in the utility construction of this project will require the surface preparation, furnishing and application of protective coatings.

The following are some abbreviation that are mentioned in the notice to bidders.

ANSI	American National Standards Institute
AWWA	American Water Works Association
FRP	Fiberglass Reinforced Plastic
HCl	Hydrochloric Acid
MDFT	Minimum Dry Film Thickness
MDFTPC	Minimum Dry Film Thickness Per Coat
mil	Thousandths of an Inch
MIL-P	Military Specification - Paint
OSHA	Occupational Safety and Health Act
PSDS	Paint System Data Sheet
SFPG	Square Feet Per Gallon
SFPGP	Square Feet Per Gallon Per Coat
SP	Surface Preparation
SSPC	Steel Structures Painting Council

PAINTING REQUIREMENTS

Unless otherwise specifically indicated, the following areas or items will not require painting:

- Exterior vinyl/aluminum surfaces
- Nonferrous and corrosion-resistance ferrous alloys such as copper, bronze, monel, aluminum, chromium plate, atmospherically exposed weathering steel, and stainless steel, except where:
    - Required for electrical insulation between dissimilar metals
    - Aluminum and stainless steel are embedded in concrete or masonry, or aluminum is in contact with concrete or masonry.

- Nonmetallic materials such as glass, PVC, porcelain, and plastic (FRP) except as required for architectural painting.

- Pre-finished electrical and architectural items such as motor control centers, switchboards, switchgear, panel boards, transformers, disconnect switches, acoustical tile, cabinets, elevators, building louvers, wall panels, etc.

- Non-submerged electrical conduits attached to unpainted concrete surfaces need not be painted.

- Items specified to be galvanized after fabrication unless specifically required elsewhere in these specifications or subject to immersion; manufactured items and materials that are "factory" galvanized shall be prepared and coated as specified hereinafter for the exposure condition of the item and for architectural purposes unless otherwise specified herein; specifications for repair of damaged galvanized surfaces are contained hereinafter.

- Insulated piping and/or insulated piping with jacket, except as required for architectural painting or color-coding.

All materials of a paint system, including primer and finish coats, shall be produced by the same paint manufacturer. Thinners, cleaners, dryers, and other additives shall be as recommended by the paint manufacturer of the particular coating.

All materials shall be new and shall be delivered to the project site in unopened containers that plainly show, at the time of use, the designated name, date of manufacture, color, and name of manufacturer. Paints shall be stored in a suitable protected area that is heated or cooled as required to maintain temperatures within the range recommended by the paint manufacturer.

In all cases where pre-coated items are to be shipped to the jobsite, all efforts will be made to protect the coating from damage. Coated items shall be battened to prevent abrasion. Contractor shall use nonmetallic or padded slings and straps in handling. Items will be rejected for excessive damage, in the opinion of the Engineer.

SUBMITTALS

Submittals in sufficient detail shall be required on the following items to show full compliance with the specification.

Factory-Applied Coatings: The Contractor shall submit to the Engineer for review, a manufacturer's certification stating that the factory applied coating system meets or exceeds requirements specified herein.

Data Sheets: For each paint system used herein, the Contractor shall obtain from each paint manufacturer for submittal to the Engineer, a Paint System Data Sheet (PSDS), Technical Field Sheet, and paint colors available (where applicable) for each produce used in the paint system, except for products applied by equipment manufacturers. The required information shall be

submitted on a system-by-system basis. The Contractor shall also provide copies of the paint system submittals to the coating applicator. A sample PSDS form is appended at the end of this notice.

WARRANTY

The Contractor and coating manufacturer shall jointly and severally warrant to the Owner work performed under this section against defective workmanship and materials for a period of one (1) year commencing on the date of final inspection of the work.

MATERIALS

Coating manufacturers listed herein are considered to have products generally equivalent to those specified. Alternate suppliers will be considered, subject to the review of the Engineer. Address given is that of the general offices; contact these offices for information regarding the location of their representative nearest the project site.

Ameron Protective Coatings, Brea, CA
Glidden Company, Cleveland, OH
Koppers Company, Inc., Pittsburgh, PA
Pittsburgh Paint, Pittsburgh, PA
Sherwin-Williams, Cleveland, OH
Tnemec Coatings, Kansas City, MO

The paint materials as outlined in each system of this specification are products manufactured by Tnemec Company, Inc. The products of other manufacturers comparable in quality and type to those specified will be acceptable.

Colors to be used are to be selected by the Owner. Colors shall be formulated with colorants free of lead, lead compounds, or other materials, which might be affected by the presence of hydrogen sulfide or other gas likely to be present at the project.

PREPARATION

The following shall be performed to protect of Materials Not To Be Painted:

- Remove, mask, or otherwise protect surfaces not intended to be painted.
- Provide drop cloths to prevent paint materials from falling on or marring adjacent surfaces.
- Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting process.
- Openings in motors shall be masked to prevent paint and other materials from entering the motor.

Field sandblasting shall be performed for items and equipment where specified and as required to restore damaged surfaces previously shop or field blasted and primed. Materials, equipment, procedures, and safety equipment for personnel shall conform to the Steel Structures Painting Council.

No surface preparation blasting will be permitted prior to submission of samples. All

workmanship for metal surface preparation as specified shall be in strict conformance with the current Steel Structures Painting Council (SSPC) Specifications as follows:

Solvent Cleaning	SP 1
Hand Tool Cleaning	SP 2
Power Tool Cleaning	SP 3
Commercial Blast Cleaning	SP 6
Brush-Off Blast Cleaning	SP 7

Wherever the words "solvent cleaning", "hand tool cleaning", "wire brushing", or "blast cleaning", or similar words of equal intent are used in these specifications or in paint manufacturer's specifications, they shall be understood to refer to the applicable SSPC specifications listed above.

Where OSHA or EPA regulations preclude standard abrasive blast cleaning, wet, or vac-blast methods may be required. Coating manufacturer's recommendations for wet blast additives and first coat application shall apply.

Areas that cannot be cleaned by power tool cleaning shall be hand tool cleaned.

All oil, grease, welding fluxes, and other surface contaminants shall be removed prior to blast cleaning. Preblast cleaning methods shall use steam, open flame, hot water, or cold water with appropriate detergent additives followed with clean water rinsing.

Small isolated areas shall be cleaned as above or solvent cleaned with suitable solvents and clean cloths.

All sharp edges shall be rounded or chamfered and all burrs, jagged edges, and surface defects shall be ground smooth.

Welds and adjacent areas shall be prepared such that there is: 1) no undercutting or reverse ridges on the weld bead, 2) weld spatter on or adjacent to the weld or any other area to be painted, and 3) no sharp peaks or ridges along the weld bead. All embedded pieces of electrode or wire shall be ground flush with the adjacent surface of the weld bead.

The type of equipment and speed of travel used with blast cleaning shall be such that the specified degree of cleanliness is obtained. The type and size of abrasive shall be selected to produce a surface profile that meets the coating manufacturer's recommendations for the particular primer to b used. Only dry blast cleaning methods will be permitted. The abrasive shall not be reused.

The Contractor shall comply with the applicable federal, state and local air pollution control regulations for blast cleaning.

Alternatives to standard abrasive blast cleaning methods will be permitted subject to a review by the Engineer.

All surfaces shall be cleaned of all dust and residual particles of the cleaning operations by dry (no oil or water vapor) air blast cleaning or other method prior to painting. Enclosed areas and other areas where dust settling is a problem shall be vacuum cleaned and wiped with a tack cloth.

Concrete surface preparation shall not begin until 30 days after the concrete has been placed.

All grease, oil, dirt, salts or other chemicals, loose materials or other foreign matter shall be removed by solvent, detergent, or other suitable cleaning methods.

Concrete surfaces shall be brush-off blast cleaned to remove all loose concrete and provide a tooth for binding. If brush-off blasting is impractical, surface may be acid etched with muriatic acid solution.

Unless otherwise required for proper adhesion, surfaces shall be dry prior to painting.

The equipment, procedure, and degree of cleaning for brush-off blast cleaning: shall conform to the Steel Structures Painting Council Surface Preparation 7, Brush-off Blast Cleaning. The abrasive may be either wet or dry blasting sand, grit, or nut shell. The various surface preparation parameters such as size and hardness of the abrasive, nozzle size, air pressure, and nozzle distance from the surface shall be selected such that the surface is cleaned without pitting, chipping, or otherwise damaging the surface. The Contractor shall verify his parameter selection by blast cleaning a trial area that will not be exposed to view. The trial blast cleaned area shall be subject to the approval of the Engineer and shall be used as a representative sample of the surface preparation. Surfaces that are damaged by blast cleaning shall be repaired or replaced by the Contractor to the satisfaction of the Engineer.

After pre-cleaning, acid etching shall consist of administering the following solution by spreading using a brush or plastic sprinkling can: 1 part commercial muriatic acid reduced by 2 parts water by volume. Adding acid to water in these proportions gives an approximate 10 percent solution of HC1. Workmen shall be equipped with necessary protective clothing. The application rate shall be approximately two (2) gallons per 100 square feet. The acid solution shall be worked into the surface by hard-bristled brushes or brooms until complete wetting and coverage is obtained. The acid will react vigorously for a few minutes, during which time brushing is continued. After the bubbling has subsided (10 minutes), hose down the remaining slurry with high pressure clean water. Rinsing must be done immediately to avoid formation of salts on the surface which are difficult to remove. Thorough rinsing is necessary to remove any residual acid surface condition, which can impair adhesion. The surface shall be completely dry before coating is applied. After etching, the surface shall be "grainy" to the touch. If not, repeat the treatment.

Solvent cleaning shall consist of removal of organic matter such as oil, grease, soil, drawing and cutting compounds, and any other surface contaminants by the use of solvents, emulsions, cleaning compounds, steam cleaning, or similar materials and methods which involve a solvent or cleaning action. This method conforms to Steel Structures Paint Council SF 1.

APPLICATION

It is the intent of these specifications that Contractors and their subcontractors employed on the jobsite will leave the surfaces of their work in such a condition that only minor cleaning, sanding, and filing is required prior to surface preparation and painting. It is the responsibility of the Contractor to inspect and provide substrate surfaces that are prepared in accordance with these specifications and the printed directions and recommendations of the paint manufacturer whose product is to be applied.

Paint shall not be applied in temperatures, exceeding the manufacturer's recommended maximum and minimum allowable, nor in dust, smoke-laden atmosphere, damp or humid weather.

Abrasive blast cleaning shall not be performed whenever the relative humidity exceeds 85 percent, nor whenever the surface temperature is less than 5°F above the dew point of the ambient air.

Painting shall be performed in strict accordance with the safety recommendations of the paint manufacturer; with the safety recommendations of the National Association of Corrosion Engineers contained in the publication, Manual for Painter Safety; federal, state, and local agencies having jurisdiction.

Multiple-component coatings shall be prepared using all of the contents of the container for each component as packaged by the paint manufacturer. No partial batches will be permitted. Multiple-component coatings that have been mixed shall not be used beyond their pot life. The Contractor shall provide small quantity kits for touchup painting and for painting other small areas. Only the components specified and furnished by the paint manufacturer shall be mixed. No intermixing of additional components for reasons of color or otherwise, even within the same generic type of coating will be permitted.

Paint materials shall be kept sealed when not in use.

Where more than one coat of a material is applied within a given system, color will be alternated to provide a visual reference that the required numbers of coats have been applied.

Manufacturer's written instructions for applying each type of paint or protective coating shall be furnished the Engineer prior to application. Cleaned surfaces and all coats shall be inspected prior to the succeeding coat. Such inspection shall be scheduled with the Engineer in advance. All coatings shall be applied in strict accordance with the paint manufacturer's recommendations, as reviewed by the Engineer. Sufficient time shall be allowed between coats to assure thorough drying of previously applied paint.

Units to be bolted together and to structures shall be painted prior to assembly or installation.

All shop primed or factory finished items shall be inspected at the jobsite for compliance with these specifications. Such inspection shall be scheduled with the Engineer in advance. Areas of chipped, peeled, or a braided coating shall be hand or power sanded feathering the edges. The areas shall then be spot primed with the specified primer. For two-package or converted

coatings, consult the coatings manufacturer for specified procedures as relates to the products. Prior to application of finish coats, shop primed surfaces shall be cleaned free of all dirt, oil, and grease, and a mist coat, 1.0-mil dry film thickness, of the specified primer applied, complete. Holdback areas for welding shall be prepared and primed, after welding, as required for the specified paint system. Application of primer shall be in accordance with manufacturer's instructions.

Abraded areas on factory finished items shall be repaired in strict accordance with the equipment manufacturer's directions. Repaired areas shall be carefully blended into the original finish.

Coverage is listed as either total minimum dry film thickness in mils (MDFT) or the spreading rate in square feet per gallon (SFPG). Per coat determinations are listed as MDFTPC or SFPGPP. The number of coats is the minimum required irrespective of the coating thickness. Additional coats may be required to obtain the minimum required paint thickness, depending on method of application, differences in manufacturers' products, and atmospheric conditions. Maximum film build per coat shall not exceed the coating manufacturer's recommendations.

Film thickness measurements and electrical inspection of the coated surfaces shall be performed with properly calibrated instruments. The Contractor shall recoat and repair as necessary for compliance with the specifications. All coats will be subject to inspection by the Engineer and the coating manufacturer's representative.

Concrete, nonferrous metal, plastic, and wood surfaces shall be visually inspected to ensure proper and complete coverage has been attained.

Particular attention shall be given edges, angles, flanges, etc. Where insufficient film thicknesses are likely to be present, ensure proper millage in these areas.

After repaired and re-coated areas have dried sufficiently, final test will be conducted by the Engineer. Coating thickness specified in mils will be measured with a magnetic type dry film thickness gauge such as Mikrotst, supplied by Nordson Corporation, Anaheim, CA. The finish coat, except zinc primer and galvanizing, will be tested for holidays and discontinuities with an electrical holiday detector, low voltage, wet sponge type such as Model M-1, manufactured by Tinker and Rasor, Sand Gabriel, CA.

Each coat shall be checked for the correct millage. No measurement will be made used a minimum of eight (8) hours after application of the coating.

Porous surfaces such as concrete, masonry, etc., may have the prime coat thinned to provide maximum penetration and adhesion. Type and amount of thinning shall be determined by the paint manufacturer and is dependent upon the surface density and type of coating.

Porous surfaces specified to receive a water base coating shall be damp, but free of running water, just prior to application of the coating.

Damaged coatings, pinholes, and holidays shall have the edges feathered and repaired in

accordance with the recommendations of the paint manufactured, as reviewed by the Engineer.

All finish coats, including touchup and damage-repair coats shall be applied in a manner, which will present a uniform texture and color-matched appearance.

All finish coats, including touchup and damage-repair coats shall be applied in a manner which will present a uniform texture and color-matched appearance.

If the item has an improper finish color, or insufficient film thickness, the surface shall be cleaned and topcoated with the specified paint material to obtain the specified color and coverage. Specific surface preparation information shall be secured from the coat manufacturer and the Engineer.

All visible areas of chipped, peeled, or abraded paint shall be hand- or power-sanded feathering the edges. The areas shall then be primed and finish coated in accordance with the specifications. Depending on the extent of repair and its appearance, a finish sanding and topcoat may be required by the Engineer.

Work shall be free of runs, bridges, shiners, laps, or other imperfections. Evidence of these conditions shall be cause for rejection.

Any defects in the coating system shall be repaired by the Contractor per written recommendations of the coating manufacturer.

All staging shall be left up until the Engineer has inspected the surface of coating. Staging removed prior to approval by the Engineer shall be replaced.

Protective Coating Systems

System No. 2A – Concrete Encased Metal

Surface Preparation	Paint Material	Minim Coat and Cover
Abrasive Blast or Centrifugal Wheel Blast (SP-6)	Coal Tar Epoxy, Tnemec 46H413 or approved equal	2 coats, 16 MDFT

System No. 5 – Exposed Metal – Mildly Corrosive

Surface Preparation	Paint Material	Minim Coat and Cover
Abrasive Blast or Centrifugal Wheel Blast (SP-6)	Organic Zinc Rich Primer, Tnemec or approved equal	1 coat, 3-5 MDFT Blast (SP-10)
	Epoxy Polyamide	2 coats, 4-6 MDFTPC

System No. 7 – Metal Trim And Structural Steel

Surface Preparation	Paint Material	Minim Coat and Cover
Abrasive Blast or Centrifugal Wheel Blast (SP-6 Or Pickle (SP 8)	Rust-Inhibitive Primer, Tnemec 37-77 or approved equal	1 coat, 2-3.5 MDFT
	Alkyd Enamel Tnemec 2H or approved equal	2 coats, 2-3 MDFTPC

System No. 8 – Buried Metal - General

Surface Preparation	Paint Material	Minim Coat and Cover
Abrasive Blast or Centrifugal Wheel Blast (SP-10)	Standard Hot Coal-Tar Enamel or	AWWA C207-73
	Coal-Tar Epoxy or	AWWA C210-78
	Tape Coat System	AWWA C214-73

System No. 11 – Galvanized Metal Repair

Surface Preparation	Paint Material	Minim Coat and Cover
Solvent Clean (SP-1) Followed by Hand Tool (SP-2, Power Tool (SP-3 or Brush-off Blast	Organic Zinc Rich Primer, Tnemec 90-93 or approved equal	1 Coat, 3 MDFT

System No. 19 – Concrete Tank Lining

Surface Preparation	Paint Material	Minim Coat and Cover
Concrete	Ceilcote 663 Ceilgard	Per Master Builders Recommendations
8000 psi water blast, blow dry with compressed air with filter per coating manufacturer's specifications	Master Builders 680 primer,	1 coat, 5 MDFT
	Ceilcoat 663 Ceilgard	1 coat, 7-8 MDFT
	Chopped Strand fiberglass Mat 103	Per manufacturer's instructions
	Ceilcoat 663 Ceilgard	1 coat, 7-8 MDFT

System No. 22 – Concrete Masonry

Surface Preparation	Paint Material	Minim Coat and Cover
Per specifications and Manufacturer's Recommendations	Tnemecrete Series 52, or approved equal	1 Coat spray and back roll: 60 to 100 SFPG
	Tnemecrete Series 52 or approved equal	2 coats: 60 to 100 SFPGPC spray applied

System No. 27 – Aluminum And Dissimilar Metal Insulation

Surface Preparation	Paint Material	Minim Coat and Cover
Solvent Clean (SP-1)	Wash Primer Tnemec 32-1210 or approved equal	1 Coat, 0.4 MDFT
	Bituminous Paint Tnemec 46-400 or approved equal	1 Coat, 10 MDFT

System No. 29 – Fusion Bonded Coating

Surface Preparation	Paint Material	Minim Coat and Cover
Abrasive Blast or Centrifugal Wheel Blast (SP-10) Or Pickle (SP 8)	Fused Bonded 100 percent Solids Epoxy or Polyurethane	1 or 2 coats, 7 MDFT

System No. 39 – Concrete Tank Lining (Wet Well Interior) and Manhole Lining (Interior) - Domestic Sewage: Installer must be authorized by product manufacturer. Both installer and product manufacturer shall warranty the liner for 10 years after its installation.

Surface Preparation	Paint Material	Minim Coat and Cover
Hydroblast concrete	Three part system using polyurea and a closed cell urethane foam (SPECTASHIELD or approved equal)	3 coats, total thickness 500 MDFT

System No. 102 – Submerged Metal – Domestic Sewage

Surface Preparation	Paint Material	Minim Coat and Cover
Abrasive Blast or Centrifugal Wheel Blast (SP-6)	Polyamide Anti-corrosive	1 coat, 2.5 MDFT
	Coal-Tar Epoxy	2 coats, 16 MDFT

Unless otherwise indicated in the Specifications or on the Plans, the work shall be painted or coated in accordance with the following application schedule. In the event of discrepancies or omission in the following, request clarification from the Engineer before starting the work in question.

System No. 2A - Concrete Encased Metal: This system shall be used on all metal surfaces encased in concrete, such as well pipes, pipes, pipe sleeves, access manholes, and structural steel excluding reinforcing steel.

System No. 5 - Exposed Metal – Mildly Corrosion: This system shall be used on exposed metal surfaces, located inside or outside of structures and exposed to highly humid atmosphere, such as

pipe galleries and similar areas; the suction pipe, valves, check valves, etc.

System No. 8 - Buried Metal – General: This system shall be used on all buried, below grade portions of steel items, except buried stainless steel or ductile iron.

System No. 11 - Galvanized metal repair. This system shall be used on platform and framing, and handrails, ladders, etc.

System No. 19 - Concrete Tank Lining: This system shall be used on the inside of the pump station valve pit.

System No. 27 - Aluminum and Dissimilar Metal Insulation: This system shall be used on all nonsubmerged concrete embedded aluminum surfaces.

System No. 29 - Fusion Bonded Coating: This system shall be used on submerged anchor bolts.

System No. 39 - Concrete Tank Lining: This system shall be used on all below grade concrete including inside of wet wells including joint areas, tops, etc., and the interior and exterior surfaces of manholes, including joint areas and tops. .

System No. 102 - Submerged Metal – Domestic Sewage: This system shall be used on all metal surfaces below a plane 1-foot above the maximum liquid surface which are a part of the immersed equipment, all concrete embedded surface of metallic items under submerged conditions, such as wall pipes, pipes, pipe sleeves, access manholes, and structural steel, except reinforcing steel. All suction piping to the wetwells below slab elevation.

FIELD CONTROL

Contractor shall give the Engineer a minimum of three (3) days advance notice of the start of any surface preparation work or coating application work. All such work shall be performed only in the presence of the Engineer, unless the Engineer has granted prior approval to perform such work in his absence.

Inspection by the Engineer, or the waiver of inspection of any particular portion of the work, shall not be construed to relieve the Contractor of the responsibility to perform the work in accordance with these specifications.

For all coatings subject to immersion, full cure must be obtained for the completed system. Consult the coatings manufacturer's written instructions for these requirements. The coating shall not be immersed for any purpose until completion of the curing cycle.

CLEANING

All cloths and waste that might constitute a fire hazard shall be placed in closed metal containers or destroyed at the end of each day.

Upon completion of the work, all staging, scaffolding, and containers shall be removed from the site or destroyed in a legal manner.

Paint spots, oil, or stains upon adjacent surfaces and floors shall be completely removed, and the entire job left clean and acceptable to the Engineer.

PAINT SYSTEM DATA SHEET

The product's Technical Data Sheet (if applicable) shall be attached to the following sheet for each paint system submittal.

Paint System Number (from spec.) _____

Paint System Title (from spec.) _____

Coating Supplier _____

Representative _____

Surface Preparation _____

Paint Material (Generic)	Product Name/Number (Proprietary)	Min. Coats Coverage

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1678 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: GPS Location - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are advised to consider the following when bidding this project.

The Contractor will be required to furnish Global Positioning System (GPS) coordinate locations within plus or minus three feet (±3') and descriptions of "As Built" subterranean use components in an electronic data file formatted to allow it to be imported into AutoCAD drawings, version 2004. No separate payment will be made for this item of work.

There are two major categories of subterranean uses. First, any manhole, valve vault or box, conflict box, catch basin etc, where the surface indication of the subterranean use could be covered by some type of future activity. Second, any intentionally buried service connection such as potable water, sewer, gas etc. that is located along a Right-of-Way.

All submittal of GPS data require a cover letter signed and sealed by a Professional Engineer or a Professional Land surveyor registered in the State of Mississippi. Latitude and longitude coordinate information shall be provided to two decimal places.

The GPS locations shall be in NAD'83 in the State Plane Coordinate Zone Mississippi East (2301). The Contractor shall use the GPS to tie to the following existing MDOT control monuments for the project.

MDOT Monument	Location	Coordinates
HVM BB-23-1	4" brass disk set in concrete board walk	N=292175.9924 E=827041.2687
HVM BB-23-2	4" brass disk set in concrete board walk	N=291720.8338 E=826579.4649
HVM AZ90-23-3	½" x 18" rebar with 2 ½" aluminum cap in Highway 90 median	N=298412.8548 E=828859.1759
HVM reset 90-23-3	4" aluminum rod with 4" aluminum cap in Highway 90 median	N=298487.3230 E=828215.9791

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1679 **CODE: (SP)**

DATE: 07/10/2007

SUBJECT: Plastic Marking Tape - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Detectable Plastic Marking Tape: Detectable plastic marking tape shall be commercially available acid and alkali-resistant polyethylene film, six inches (6") wide with minimum thickness of 0.004 of an inch. Tape shall have a minimum strength of 1750 psi lengthwise and 1500 psi crosswise. The tape shall be manufactured with integral wires, foil backing or other means to enable detection by a metal detector when the tape is buried up to three feet (3') deep. The tape shall be of a type specifically manufactured for marking and locating underground utilities. The metallic core of the tape shall be encased in a protective jacket or provided with other means to protect it from corrosion. Tape color shall be as specified below and shall bear a continuous printed inscription describing the specific utility.

Tape Color

Red	Electric
Yellow	Gas, Oil, and Dangerous Materials
Orange	Telephone, Telegraph, Television, Police, and Fire Communications
Blue	Water Systems
Green	Sewer Systems

Non-Detectable Plastic Marking Tape: Non-detectable plastic marking tape shall be six inches (6") wide. It shall consist of multiple layers of polyethylene with an overall thickness of 3 to 5 mils. The black colored lettering on the warning tape shall be abrasion resistant and be imprinted on a color coded background that conforms to the above color code.

Tracer Wire: Tracer wire shall be a 14 gauge, copper single-conductor wire with type Underground Feeder insulation.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1701 **CODE: (SP)**

DATE: **07/24/2008**

SUBJECT: **Contract Time**

PROJECT: **ER-9354-00 (002) / 104637301 & SP-9354-00 (002) / 104637302 -- Hancock County**

The calendar date for completion of work to be performed by the Contractor for this project shall be **December 31, 2009**, which date or extended date as provided in Subsection 108.06 shall be the end of Contract Time. It is anticipated that the Notice of Award will be issued by not later than **September 9, 2008** . The date for the Notice to Proceed / Beginning of Contract Time will be simultaneous with the execution of the contract.

A progress schedule as referenced to in Subsection 108.03 will not be required for this contract.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1702

DATE: 06/16/2008

SUBJECT: Specialty Items

PROJECT: ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302 - Hancock County

Pursuant to the provisions of Section 108, the following work items are hereby designated as "Specialty Items" for this contract. Bidders are reminded that these items must be subcontracted in order to be considered as specialty items.

CATEGORY: ASPHALT CONCRETE

Line No	Pay Item	Description
1340	907-403-A011	Hot Mix Asphalt, ST, 12.5-mm mixture
1350	907-403-A012	Hot Mix Asphalt, ST, 19-mm mixture
1360	907-403-A015	Hot Mix Asphalt, ST, 9.5-mm mixture

CATEGORY: CURBING, SIDEWALKS, GUTTERS

Line No	Pay Item	Description
0710	608-A001	Concrete Sidewalk, Without Reinforcement
0720	609-B004	Concrete Curb, Special Design Header
0730	609-D006	Combination Concrete Curb and Gutter Type 1 Modified
0740	614-A002	Concrete Driveway, Without Reinforcement, 6-inch Thickness

CATEGORY: DRAINAGE, CULVERTS, CONDUITS

Line No	Pay Item	Description
1450	907-603-V001	Video Pipe Inspection, All Sizes

CATEGORY: EROSION CONTROL

Line No	Pay Item	Description
0310	212-A001	Light Ground Preparation
0320	212-B001	Standard Ground Preparation
0330	213-B001	Combination Fertilizer, 13-13-13
0340	213-C001	Superphosphate
0350	214-A002	Seeding, Bermudagrass
0360	214-A003	Seeding, Tall Fescue
0370	214-A014	Seeding, Browntop Millet
0380	214-A015	Seeding, Oats
0390	214-A017	Seeding, Rye Grass
0400	215-A001	Vegetative Materials for Mulch
0410	216-A001	Solid Sodding
0420	217-A001	Ditch Liner
0430	219-A001	Watering
0440	220-A001	Insect Pest Control

CATEGORY: EROSION CONTROL

Line No	Pay Item	Description
0970	907-213-A001	Agricultural Limestone
0980	907-225-A001	Grassing
0990	907-227-A002	Hydroseeding, Temporary Grassing

CATEGORY: EARTHWORK, CLEARING & GRUBBING

Line No	Pay Item	Description
0270	203-EX006	Borrow Excavation, AH, LVM, Class B3
0280	203-G004	Excess Excavation, LVM, AH

CATEGORY: LANDSCAPING

Line No	Pay Item	Description
0460	223-A001	Mowing
1000	907-230-A011	Shrub Planting, Dwarf Yaupon Holly
1010	907-230-A043	Shrub Planting, Asian Jasmine
1020	907-230-A044	Shrub Planting, Parsons Juniper
1030	907-230-B065	Tree Planting, Windmill Palm

CATEGORY: PAVEMENT STRIPING AND MARKING

Line No	Pay Item	Description
0870	627-L001	Two-Way Yellow Reflective High Performance Raised Markers
1530	907-626-B003	6" Thermoplastic Traffic Stripe, Continuous White
1540	907-626-C004	6" Thermoplastic Edge Stripe, Continuous White
1550	907-626-C008	6" Thermoplastic Edge Stripe, Continuous White
1560	907-626-E003	6" Thermoplastic Traffic Stripe, Continuous Yellow
1570	907-626-E004	6" Thermoplastic Traffic Stripe, Continuous Yellow
1580	907-626-G001	Thermoplastic Detail Stripe, Blue-ADA
1590	907-626-G004	Thermoplastic Detail Stripe, White
1600	907-626-H002	Thermoplastic Legend, Blue-ADA Handicap Symbol
1610	907-626-H004	Thermoplastic Legend, White
1620	907-626-H005	Thermoplastic Legend, White

CATEGORY: DISPOSAL OF BUILDINGS, RIGHT OF WAY CLEA

Line No	Pay Item	Description
0520	406-A001	Cold Milling of Bituminous Pavement, All Depths

CATEGORY: SURVEY AND STAKING

Line No	Pay Item	Description
0940	699-A001	Roadway Construction Stakes
1510	907-617-A001	Right-of-Way Marker

CATEGORY: TRAFFIC CONTROL - PERMANENT

Line No	Pay Item	Description
0880	630-A001	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
0890	630-A002	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
0900	630-C003	Steel U-Section Posts, 3.0 lb/ft
0910	630-C004	Steel U-Section Posts, 3.0 to 3.5 lb/ft
0930	668-A018	Traffic Signal Conduit, Underground, Type 4, 2"

CATEGORY: TRAFFIC CONTROL - TEMPORARY

Line No	Pay Item	Description
0760	619-A2002	Temporary Traffic Stripe, Continuous Yellow
0770	619-A2003	Temporary Traffic Stripe, Continuous Yellow, Paint
0780	619-A5001	Temporary Traffic Stripe, Detail
0790	619-A6001	Temporary Traffic Stripe, Legend
0800	619-A6003	Temporary Traffic Stripe, Legend, Paint
0810	619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet
0820	619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More
0830	619-G4001	Barricades, Type III, Single Faced
0840	619-G4005	Barricades, Type III, Double Faced
0850	619-G5001	Free Standing Plastic Drums
1520	907-619-L001	Construction Safety Fence

CATEGORY: UTILITY ITEMS

Line No	Pay Item	Description
1040	907-260-A002	Lift Station
1050	907-260-A002	Lift Station
1060	907-262-A001	8" PVC Pipe
1070	907-262-A001	8" PVC Pipe
1080	907-262-A001	8" PVC Pipe
1090	907-262-B001	8" PVC Pipe, With Joint Restraint
1100	907-262-B001	8" PVC Pipe, With Joint Restraint
1110	907-262-B001	8" PVC Pipe, With Joint Restraint
1120	907-262-C001	Sewer Service Assembly
1130	907-262-D001	8' Casing Pipe
1140	907-262-E001	Initial Alignment, Deflection and Pressure Test
1150	907-263-A001	8" Diameter HDPE Force Main Pipe, SDR 17
1160	907-264-A001	2" Polyethylene Gas Line
1170	907-264-A002	3" Polyethylene Gas Line
1180	907-264-A003	4" Polyethylene Gas Line
1190	907-264-B001	4" Isolation Polyethylene Ball Valve
1200	907-264-C001	Natural Gas Service Assembly
1210	907-264-D001	8' Casing Pipe
1220	907-264-E001	Initial Testing
1230	907-265-A001	6" PVC Pipe
1240	907-265-B001	6" PVC Pipe, With Joint Restraint

CATEGORY: UTILITY ITEMS

Line No	Pay Item	Description
1250	907-265-C001	Ductile Iron MJ Fittings
1260	907-265-D001	6" Isolation Gate Valve
1270	907-265-E001	Potable Water Service Assembly
1280	907-265-F001	Fire Hydrant Assembly
1290	907-265-G001	8' Casing Pipe
1300	907-265-H001	Initial Testing
1310	907-265-I001	Initial DisinfectionTesting
1380	907-603-A001	12" Steel Pipe, Jacked or Bored
1390	907-603-A002	8" Steel Pipe, Jacked or Bored
1410	907-603-D003	8" Cured-In-Place Pipe
1420	907-603-DD001	Directional Drilling, 4" HDPE Pipe, SDR 11, Force Main
1430	907-603-DD002	Directional Drilling, 4" HDPE Pipe, SDR 11, Gas
1440	907-603-DD003	Directional Drilling, 6" HDPE Pipe, SDR 11, Water
1460	907-603-X001	Point Repair, 8" Clay Sewer
1470	907-604-C001	Precast Manhole, 48-inch Diameter
1480	907-604-C002	Precast Manhole, 60-inch Diameter
1490	907-604-C002	Precast Manhole, 60-inch Diameter
1500	907-604-V001	Initial Manhole Vacuum Test

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1703 **CODE: (SP)**

DATE: 01/09/2008

SUBJECT: Cooperation Between Contractors

PROJECT: ER-9354-00(002) / 104637301 & 302 -- Hancock County

The Bidder's attention is hereby called to Subsection 105.07, Cooperation between Contractors, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction.

Bidders are advised that adjacent sections of Beach Boulevard and Beach Boulevard side street may be under construction during the life of this project. Currently, contracts for utility work are being perform in these areas:

Area 1 -- bounded by Bay Oaks Drive, South Beach Boulevard, and the CSX Railroad
Area 2 -- bounded by Necaise Avenue, U.S. Highway 90, North Beach Boulevard, and the CSX Railroad.

The Contractor shall cooperate in all respects and shall coordinate construction of all phases of work of this project with the Contractor(s) of adjacent projects.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO NOTICE TO BIDDERS NO. 1727

DATE: 12/11/2007

PROJECT: ER-9354-00 (002) / 104637301 & SP-9354-00 (002) / 104637302 -- Hancock County

After the second paragraph on page 1, add the following:

Name Insured: CSX Railroad

Description and Designation: Construction of Utilities and Roadway on Beach Boulevard

Mile Post: Centerline of Proposed Beach Boulevard at Station 427+40+, 220+ feet southeast of Mile Marker 754, at Bay St. Louis.

After the fourth paragraph on page 1, add the following:

CSX Railroad

Utility Coordinator
Donna Jadwin
500 Water Street
Jacksonville, Florida 32202
Telephone 904-633-1108

Roadway Coordinator
Shelby Stevenson
4901 Belfort Rd. Suite 130
Jacksonville, Florida 32256
Telephone 904-359-1177
shelby_stevenson@csx.com

In the seventh paragraph on page 1, change “twenty-five (25) feet” to “fifty (50) feet”.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1727 **CODE: (SP)**

DATE: 09/20/2007

SUBJECT: Railway-Highway Provisions

Prior to bidding, the Contractor shall contact the Railroad concerning insurance coverage required for this project. In case the railroad requires coverage over and above that required by the Standard Specifications, the railroad requirements shall be met.

The name insured, description of the work and designation of the job site to be shown on the Policy are as follows:

Notice of starting to work, completion of any required forms, and correspondence pertaining to railroad liability insurance shall be directed to the person below.

The Contractor shall not commence, or carry on, any work for installation, maintenance, repair, changing or renewal of any FACILITY, under, over or on RAILROAD property at any location without giving at least ten (10) working days prior notice to the RAILROAD authorized representative at the RAILROAD's office(s) below.

If in the opinion of the RAILROAD, the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the Contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

It will be the Contractor's responsibility to pay all bills associated with railroad flagging and cable locating.. Generally, the flagging rate is $700.00 per day (1 to 8 hours) plus overtime at $125.00 per hour, however, the Contractor shall contact the RAILROAD to verify all rates.

A flagman is required anytime a Contractor does any work on or near RAILROAD property within twenty-five (25) feet horizontally of the centerline or any work over any railroad track. The RAILROAD, however, also reserves the right to require a flagman for work on RAILROAD property, which is more than twenty-five (25) feet from the centerline of a railroad track when there are other conditions or considerations that would dictate the need for a flagman to safeguard the RAILROAD's operations, property and safety of working personnel.

A cable locate of RAILROAD owned facilities may be required to identify and protect Signal & Communication cables that have been installed to provide power, signal control, wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

Outside Contractors are prohibited from driving on, along, or across any track that does not have

a RAILROAD installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing has been banned.

Exceptions to this rule will require the express approval from the RAILROAD Engineers.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904- NOTICE TO BIDDERS NO. 1840 **CODE: (SP)**

DATE: 01/10/2008

SUBJECT: Access for Pier Construction

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are hereby advised that access across Beach Boulevard at Bookter Street shall be made available at all times for the Contractor that will be constructing the pier on the beach.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1841 **CODE: (SP)**

DATE: **01/11/2008**

SUBJECT: **Project Number Change**

PROJECT: **ER-9354-00 (002) / 104637301 & SP-9354-00 (002) / 104637302 -- Hancock County**

Anywhere in the plans, proposal and specifications for the above project that reference is made to Federal Aid Project No. **ER-9354-00 (002) / 104637301 & 302,** it is understood that Federal Aid Project No. **ER-9354-00 (002) / 104637301** & State Project No. **SP-9354-00 (002) / 104637302** are the correct project numbers.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1869 **CODE: (SP)**

DATE: 02/01/2008

SUBJECT: Minimum Wage Rate

Bidders are advised of an increase in the minimum federal wage rate established by the United States Department of Labor Wage and Hour Division beginning July 24, 2007. On July 24, 2007, the minimum wage rate was increased to $5.85 per hour.

MDOT gets the minimum wage rates and classifications that are used in proposals from the Department of Labor website. Because of delays in posting to the website, the wages rates and classifications in this proposal may not contain the latest information regarding wage rates and classifications.

Bidders are advised that regardless of the wage rates listed in the Supplement to FHWA 1273, minimum federal wage rates must be paid.

Below are Federal minimum wage rates and effective dates.

Beginning July 24, 2007	$ 5.85
Beginning July 25, 2008	$ 6.55
Beginning July 24, 2009	$ 7.25

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1903 **CODE: (IS)**

DATE: 02/26/2008

SUBJECT: Status of Right-of-Way, Utility Adjustments and Potentially Contaminated Sites

Although it is desirable to have acquired all rights-of-way and completed all utility adjustments and work to be performed by others prior to receiving bids, sometimes it is not considered to be in the public interest to wait until each and every such clearance has been obtained. The bidder is hereby advised of possible unacquired rights-of-way, relocatees and utilities which have not been completed.

The status of right-of-way acquisition, utility adjustments, and potentially contaminated sites are set forth in attachments to this Notice to Bidders entitled "Status of Right-of-Way", "Status of Utility Adjustments" and "Status of Potentially Contaminated Sites."

In the event right of entry is not available to ALL parcels of right-of-way and/or all work that is to be accomplished by others on the date set forth in the contract for the Notice to Proceed is not complete, the Department will issue a restricted Notice to Proceed.

STATUS OF RIGHT-OF-WAY
ER-9354-00(002)
104637-301000
HANCOCK COUNTY
June 26, 2008

All rights of way and legal rights of entry have been acquired, **except**:

The easement obtained from CSX Railroad makes reference to the usual construction agreement that deals with flagging, notices, etc. This agreement has not yet been finalized and approved by both parties. It is expected that approval will be complete by October 1, 2008.

ASBESTOS CONTAMINATION STATUS OF BUILDINGS
TO BE REMOVED BY THE CONTRACTOR
ER-9354-00(002)
104637-301000
HANCOCK COUNTY
June 18, 2008

Reference is made to notices to bidders entitled "Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP)" and "Removal of Obstructions".

The following pertinent information is furnished concerning asbestos containing materials (ACMs), if any, found in buildings to be removed by the Contractor.

There are no buildings in the contract to be removed.

STATUS OF POTENTIALLY CONTAMINATED SITES
ER-9354-00(002)
104637-301000
HANCOCK COUNTY
June 18, 2008

This project has been inspected and there was no visible indication of potentially contaminated sites within the proposed right of way.

UTILITY STATUS REPORT
ER-9354-00(002) / 104637301 &
SP-9354-00(002) / 104637302
Hancock County
July 9, 2008

The status of utility work on the above project is as follows:

AT&T -Mississippi
No Utility Agreement required.
AT&T has completed all adjustments.
Contractor's operations should not be adversely affected.

MediaCom Communications
No Utility Agreement required.
Contractor's operations should not be adversely affected.

Gulf South LP Pipeline
No Utility Agreement required.
Contractor's operations should not be adversely affected.

Mississippi Power Company
No Utility Agreement required.
Mississippi Power Company has completed all adjustments.
Contractor's operations should not be adversely affected.

This is to certify that all necessary arrangements have been made for all utility work involved to be undertaken and completed as required for proper coordination with the physical construction schedules.

As noted above, no serious conflicts with the contractor's operations are anticipated.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1918 **CODE: (IS)**

DATE: 03/26/2008

SUBJECT: DBE Forms, Participation and Payment

Bidders are hereby advised that the participation of a DBE Firm can not be counted towards the Prime Contractor's DBE goal until the amount being counted towards the goal has been paid to the DBE.

Form OCR-482 has been developed to comply with this requirement. Bidders are hereby advised that at the end of the job, the Prime Contractor will submit this form to the Project Engineer before the final estimate is paid and the project is closed out. This form certifies payments to all DBE Subcontractors over the life of the contract.

Form OCR-484 has also been developed to comply with this requirement. Bidders are hereby advised that each month, the Prime Contractors will submit this form to the Project Engineer no later than the 20th of each month. This form certifies payments to all Subcontractors and shows all firms even if the Prime Contractor has paid no monies to the firm during that estimate period (negative report). The Project Engineer will attach this form to the monthly estimate before forwarding the estimate to the Contract Administration Division for processing.

Bidders are also advised that Form OCR-485 will be completed by **ALL BIDDERS** submitting a bid proposal and **must be signed and included in the bid proposal package**. Failure to include Form OCR-485 in the bid proposal package will cause the Contractor's bid to be considered **irregular**.

DBE Forms, including Forms OCR-482, OCR-484 and OCR-485, can be obtained from the Office of Civil Rights Division, MDOT Administration Building, 401 North West Street, Jackson, MS, or at www.gomdot.com under *Business, Disadvantaged Enterprise, Applications and Forms for the DBE Program, MDOT Forms*.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1922 **CODE: (SP)**

DATE: 03/31/2008

SUBJECT: Non-Quality Control / Quality Assurance Concrete

Bidders are advised that the following pay items will not be accepted based on the Quality Control / Quality Assurance (QC/QA) requirements of Section 804 of the specifications. The acceptance of these pay items will be based on sampling and testing at the project site by MDOT forces. The Contractor is required to submit mix designs to accomplish this work in accordance with Section 804 and perform normal Quality Control functions at the concrete plant. Acceptance will be in accordance with the requirements of 907-601, Structural Concrete, and TMD-20-04-00-000. At the discretion of the Engineer, the Contractor may request that the concrete be accepted based on QC/QA requirements.

Pay Item	Description
221	Paved Ditches
601	Structural Concrete, Minor Structures - manholes, inlets, catch basins, junction boxes, pipe headwalls, and pipe collars.
606	Guardrail Anchors
607	Fence Post Footings
608	Sidewalks
609	Curb and Gutter
614	Driveways
616	Median and Island Pavement
630	Sign Footings, except Overhead Sign Supports

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1928 **CODE: (IS)**

DATE: 04/14/2008

SUBJECT: Federal Bridge Formula

Bidders are hereby advised that Federal Highway Administration Publication No. FHWA-MC-94-007, **BRIDGE FORMULA WEIGHTS**, dated January 1994, is made a part of this contract when applicable.

Prior to the preconstruction conference, the Contractor shall advise the Engineer, in writing, what materials, if any, will be delivered to the jobsite via Interstate route(s).

Copies of the **BRIDGE FORMULA WEIGHTS** publication may be obtained by contacting:

Federal Highway Administration
400 7th Street, SW
Washington, DC 20590
(202) 366-2212

or

http://ops.fhwa.dot.gov/freight/sw/brdgcalc/calc_page.htm

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904- NOTICE TO BIDDERS NO. 2043 **CODE: (SP)**

DATE: 07/07/2008

SUBJECT: Restricted Area

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Bidders are hereby advised that an agreement from the CXS Railroad allowing access to the railroad right-of-way has not been finalized. The Contractor will be restricted from performing any work within fifty feet (50') either side of the centerline of the tracks that crosses the project at Station 427+40±. This restriction includes work on, above, or below the restricted area, and stopping any vehicles or equipment in the restricted area. This restriction is from right-of-way to right-of-way and will be in affect until **March 1, 2009**. Should the restriction be lifted earlier than March 1, 2009, the Engineer will advise the Contractor in writing.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 – NOTICE TO BIDDERS NO. 2048 **CODE: (SP)**

DATE: **7/9/2008**

SUBJECT: **Petroleum Products Base Prices For Contracts Let in August, 2008**

REFERENCE: **Subsection 109.07**

The following base prices are to be used for adjustment in compensation due to changes in costs of petroleum products:

FUELS

	Per Gallon	Per Liter
Gasoline	$3.8691	$1.0221
Diesel	$4.5186	$1.1937

MATERIALS OF CONSTRUCTION

ASPHALT CEMENT	Per Gallon	Per Ton	Per Liter	Per Metric Ton
Viscosity Grade AC-5	$2.5206	$598.00	$0.6659	$659.17
Viscosity Grade AC-10	$2.5185	$597.50	$0.6653	$658.62
Viscosity Grade AC-20	$2.4869	$590.00	$0.6570	$650.35
Viscosity Grade AC-30	$2.4658	$585.00	$0.6514	$644.84
Grade PG 64-22	$2.4929	$591.43	$0.6585	$651.93
Grade PG 67-22	$2.4784	$588.00	$0.6547	$648.15
Grade PG 76-22	$3.0488	$723.33	$0.8054	$797.32
Grade PG 82-22	$3.3299	$790.00	$0.8797	$870.81

EMULSIFIED ASPHALTS

Grade EA-4 (SS-1)	$1.8059	$0.4771
Grade RS-2C (CRS-2)	$1.7493	$0.4621
Grade CRS-2P	$2.0289	$0.5360

PRIMES

Grade EA-1 & MC-70	$2.9627	$0.7827

SUPPLEMENT TO FORM FHWA-1273

The following MINIMUM HOURLY WAGE RATES have been predetermined by the Secretary of Labor in General Decision No. **MS20080017** dated February 8, 2008.

COUNTIES
HANCOCK, HARRISON AND JACKSON

CLASSIFICATION	MINIMUM HOURLY WAGE RATE
Air Tool Operator (Jack Hammer/Air Comp.)	$6.25
Asphalt Raker	6.25
Carpenter	8.67
Cement Mason (Finisher)	8.33
Electrician	12.00
Form Setter	7.00
Grade Checker (Asphalt Crew)	7.35
Ironworker, Reinforcing (Tie Steel)	12.36
Ironworker, Structural	13.89
Joint Filler	5.85
Joint Setter	5.85
Laborer, Unskilled	5.85
Mason Tender (Cement Mason Helper)	7.50
Mechanic (Heavy Equipment)	9.68
Oiler-Greaser	6.55
Painter (Structural Steel)	5.85
Piledriverman	7.50
Pipelayer	7.45
Truck Driver (All Types)	6.14
Welder	10.14
POWER EQUIPMENT OPERATORS	
Aggregate Spreader Operator	7.31
Asphalt Broom (Sweeper) Operator	5.85
Asphalt Distributor Operator	6.40
Asphalt Paving Machine/Spreader Operator	7.50
Asphalt Plant Operator	6.31
Backhoe (Shovel) Operator	7.67
Bulldozer Operator	8.40
Concrete Breaker/Hydro-Hammer Operator	8.24
Concrete Finishing/Curing Machine Operator	8.45
Concrete Paving Machine Operator (Spreader)	8.97
Concrete Saw Operator	8.56
Crane (Dragline) Operator	9.47
Crusher Feeder Machine Operator	5.85
Earth Auger Operator	8.50
Guardrail Post Driver	8.57
Loader (All Types)	7.75
Milling Machine Operator	10.75
Mixer Operator (All Types)	8.12
Motor Patrol (Grader) Operator	9.10
Mulcher Machine Operator	5.85
Piledriver Machine Operator	8.13
Roller Operator (Self-Propelled)	6.26
Scraper Operator (All Types)	6.83
Striping Machine Operator	7.63
Tractor Operator (Track Type)	6.83
Tractor Operator (Wheel Type)	5.96
Trenching Machine Operator	8.88

Authorized Payroll Code may be used in lieu of classification titles on weekly payrolls submitted to this Department. Codes or classification titles not conforming to those listed will not be acceptable.

SUPPLEMENT TO FORM FHWA-1273

DATE: 6/15/94

SUBJECT: Final Certificate and Contract Provisions for Subcontracts

All subcontracts shall be in writing and contain all pertinent provisions and requirements of the prime contract.

Each "Request for Permission to Subcontract" (Mississippi Department of Transportation Form CAD-720) shall include a copy of subcontract for review by the Mississippi Department of Transportation. The federal contract provisions may be omitted from the subcontract copy submitted for review provided the Contractor certifies that the provisions will be physically incorporated into the agreement furnished to the Subcontractor.

In lieu of submitting a copy of the subcontract for review, the Contractor may certify that the subcontract agreement is in writing and that it contains all the requirements and pertinent provisions of the prime contract.

Each Subcontractor will be required to provide a copy of the subcontract agreement for contract compliance reviews, along with physical evidence (copy of FHWA-1273) that requirements and pertinent provisions have been provided for review and adherence.

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant

of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly takecorrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward

qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within thetime limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. **Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. **General:**

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. **Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. **Payment of Fringe Benefits:**

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. **Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level ofprogress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wagedetermination for the classification of work actually performed.

5. **Apprentices and Trainees (Programs of the U.S. DOT):**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. **Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the

same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. **Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. **Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. **Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. **Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. **Payrolls and Payroll Records:**

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned,

without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provideall safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary,

hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false represen-tation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended andsupplemented;

Shall be fined not more that $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such require-ments.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. **Instructions for Certification - Primary Covered Transactions:**

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowinglyrendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

2. **Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive

Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, 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 undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

NOTICE OF REQUIREMENTS FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for female participation in each trade (percent)
From April 1, 1978 until March 31, 1979	3.1
From April 1, 1979 until March 31, 1980	5.1
From April 1, 1980 until March 31, 1981	6.9

Until further notice	Goals for minority participation for each trade (percent)
SHSA Cities:	
Pascagoula - Moss Point	16.9
Biloxi - Gulfport	19.2
Jackson	30.3
SMSA Counties:	
Desoto	32.3
Hancock, Harrison, Stone	19.2
Hinds, Rankin	30.3
Jackson	16.9
Non-SMSA Counties:	
George, Greene	26.4
Alcorn, Benton, Bolivar, Calhoun, Carroll, Chickasaw, Clay, Coahoma,Grenada, Itawamba, Lafayette, Lee, Leflore, Marshall, Monroe,Montgomery, Panola, Pontotoc, Prentiss, Quitman, Sunflower,Tallahatchie, Tate, Tippah, Tishomingo, Tunica, Union, Washington, Webster, Yalobusha	26.5
Attala, Choctaw, Claiborne, Clarke, Copiah, Covington, Franklin, Holmes, Humphreys, Issaquena, Jasper, Jefferson, Jefferson Davis, Jones Kemper, Lauderdale, Lawrence, Leake, Lincoln, Lowndes, Madison, Neshoba, Newton, Noxubee, Oktibbeha, Scott, Sharkey, Simpson, Smith, Warren, Wayne, Winston, Yazoo	32.0
Forrest, Lamar, Marion, Pearl River, Perry, Pike, Walthall	27.7
Adams, Amite, Wilkinson	30.4

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is to the county and city (if any), stated in the advertisement.

5. The notification required in Paragraph 3 shall be addressed to the following:

Contract Compliance Officer
Mississippi Department of Transportation
P.O. Box 1850
Jackson, Mississippi 39215-1850

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-101-3 **CODE: (SP)**

DATE: 07/13/2007

SUBJECT: **Abbreviations**

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 101, Definitions and Terms, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-101.01--Abbreviations. Add the following to the list of abbreviations in Subsection 101.01 on pages 1, 2 & 3.

ADA	American Disabilities Act
AEC	Architectural / Engineering / Construction
AMCA	Air Moving & Conditioning Association, Inc.
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers, Inc.
AWI	American Wood Institute
AWPB	American Wood Preservers Bureau
CAD	Computer Aided Design
CBM	Certified Ballast Manufacturers
CFR	Code of Federal Regulations
CSI	Construction Specifications Institute
CTS	copper tube size
ETL	Electric Testing Laboratories
FM	Factory Mutual
FS	Federal Specifications
GPS	Global Positioning System
HMWPE	high molecular weight polyethylene (electrical wire insulation)
IPCEA	Insulated Power Cable Engineers Association
IPS	iron pipe size
MIPT	male iron pipe thread
MSS	Manufacturers Standardization Society of the Valve and Fitting Industry
NAAMM	National Association of Architectural Metal Manufacturers
NAD	North American Datum
NFPA	National Fire Protection Association Codes
NRMCA	National Ready Mixed Concrete Association
PCA	Precast Concrete Institute
PE	Polyethylene
PPI	Plastic Pipe Institute
Psi	pound per square inch
Psig	pounds per square inch gage

SBC	Standard Building Code
SDI	Steel Deck Institute
SDR	standard dimension ratio (nominal outside diameter of pipe divided by the minimum wall thickness)
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SWP	safe working pressure
WOG	water / oil / gas (applications that a valve can be used)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-104-1 **CODE: (IS)**

DATE: 05/03/2004

SUBJECT: Partnering Process

Section 104, Scope of Work, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-104.01--Intent of Contract. At the end of Subsection 104.01 on Page 24, add the following:

907-104.01.1--Partnering Process.

COVENANT OF GOOD FAITH AND FAIR DEALING:

This contract imposes an obligation of good faith and fair dealing in its performance and enforcement.

The contractor and the Department, with a positive commitment to honesty and integrity, agree to the following mutual duties:

A. Each will function within the laws and statutes applicable to their duties and responsibilities.

B. Each will assist in the other's performance.

C. Each will avoid hindering the other's performance.

D. Each will proceed to fulfill its obligations diligently.

E. Each will cooperate in the common endeavor of the contract.

VOLUNTARY PARTNERING:

The Mississippi Department of Transportation intends to encourage the foundation of a cohesive partnership with the contractor and its principal subcontractors and supplier. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance and completion within budget, on schedule, and in accordance with plans and specifications.

This partnership will be bilateral in make-up, and participation will be totally voluntary. Any cost associated with effectuating this partnering will be agreed to by both parties and will be shared equally.

To implement this partnering initiative prior to starting of work in accordance with the requirements of Subsection 108.02 Notice to Proceed and prior to the preconstruction conference, the contractor's management personnel and MDOT's District Engineer, will initiate a partnering development seminar/team building workshop. The Contractor working with the assistance of the District and the State Construction Engineer will make arrangements to determine attendees for the workshop, agenda of the workshop, duration, and location. Persons required to be in attendance will be the MDOT key project personnel, the contractor's on-site project manager and key project supervision personnel of both the prime and principal subcontractors and suppliers. The project design engineers, FHWA and key local government personnel will be also be invited to attend as necessary. The contractors and MDOT will also be required to have Regional/District and Corporate/State level managers on the project team.

Follow-up workshops may be held periodically throughout the duration of the contract as agreed by the contractor and Mississippi Department of Transportation.

The establishment of a partnership charter on a project will not change the legal relationship of the parties to the contract nor relieve either party from any of the terms of the contract.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-105-3

DATE: 03/31/2008

SUBJECT: Cooperation By Contractor

Delete the first sentence of the first paragraph inder 907-105-05 on page 1, and substitute the following:

On projects that include erosion control pay items, the Contractor shall also designate a responsible person whose primary duty shall be to monitor and maintain the effectiveness of the erosion control plan, including NPDES permit requirements.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-105-3 **CODE: (IS)**

DATE: 02/14/2006

SUBJECT: **Cooperation By Contractor**

Section 105, Control of Work, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is modified as follows:

907-105.05--Cooperation by Contractor. In the third sentence of the second paragraph of Subsection 105.05 on page 35, change "Notice to Proceed" to "Notice of Award".

Delete the fourth paragraph of Subsection 105.05 on page 35, and substitute the following.

The Contractor shall also designate a responsible person whose primary duty shall be to monitor and maintain the effectiveness of the erosion control plan, including NPDES permit requirements. This responsible person must be a Certified Erosion Control Person certified by an organization approved by the Department. Prior to or at the pre-construction conference, the Contractor shall designate in writing the Certified Erosion Control Person to the Project Engineer. The designated Certified Erosion Control Person shall be assigned to only one (1) project. When special conditions exist, such as two (2) adjoining projects or two (2) projects in close proximity, the Contractor may request in writing that the State Construction Engineer approve the use of one (1) Certified Erosion Control Person for both projects. The Contractor may request in writing that the Engineer authorize a substitute Certified Erosion Control Person to act in the absence of the Certified Erosion Control Person. The substitute Certified Erosion Control Person must also be certified by an organization approved by the Department. A copy of the Certified Erosion Control Person's certification must be included in the Contractor's Protection Plan as outlined in Subsection 907-107.22.1. This in no way modifies the requirements regarding the assignment and availability of the superintendent.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-107-1

DATE: 03/21/2006

SUBJECT: Liability Insurance

In the first sentence of the first paragraph of Subsection 907-107.14.2.1 on page 1, change "$300,000 each occurrence" to "$500,000 each occurrence".

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-107-1 **CODE: (IS)**

DATE: 05/03/2004

SUBJECT: **Liability Insurance**

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-107.14.2--Liability Insurance. Delete in toto Subsection 107.14.2 beginning on page 60 and substitute:

907-107.14.2.1--General. The Contractor shall carry Contractor's liability, including subcontractors and contractual, with limits not less than: $300,000 each occurrence; $1,000,000 aggregate; automobile liability - $500,000 combined single limit - each accident; Workers' Compensation and Employers' Liability - Statutory & $100,000 each accident; $100,000 each employee; $500,000 policy limit. Each policy shall be signed or countersigned by a Mississippi Resident Agent of the insurance company.

The Contractor shall have certificates furnished to the Department from the insurance companies providing the required coverage. The certificates shall be on the form furnished by the Department and will show the types and limits of coverage.

907-107.14.2.2--Railroad Protective. The following provisions are applicable to all work performed under a contract on, over or under the rights-of-way of each railroad shown on the plans.

The Contractor shall assume all liability for any and all damages to work, employees, servants, equipment and materials caused by railroad traffic.

Prior to starting any work on railroad property, the Contractor shall furnish satisfactory evidence to the Department that insurance of the forms and amounts set out herein in paragraphs (a) and (b) has been obtained. Also, the Contractor shall furnish similar evidence to the Railroad Company that insurance has been obtained in accordance with the Standard Provisions for General Liability Policies and the Railroad Protective Liability Form as published in the Code of Federal Regulations, 23 CFR 646, Subpart A. Evidence to the Railroad Company shall be in the form of a Certificate of Insurance for coverages required in paragraph (b), and the original policy of the Railroad Protective Liability Insurance for coverage required in paragraph (a).

All insurance herein specified shall be carried until the contract is satisfactorily complete as evidenced by a release of maintenance from the Department.

The Railroad Company shall be given at least 30 days notice prior to cancellation of the Railroad Protective Liability Insurance policy.

For work within the limits set out in Subsection 107.18 and this subsection, the Contractor shall provide insurance for bodily injury liability, property damage liability and physical damage to property with coverages and limits no less than shown in paragraphs (a) and (b). Bodily injury shall mean bodily injury, sickness, or disease, including death at anytime resulting therefrom. Property damage shall mean damages because of physical injury to or destruction of property, including loss of use of any property due to such injury or destruction. Physical damage shall mean direct and accidental loss of or damage to rolling stock and their contents, mechanical construction equipment or motive power equipment.

(a) **Railroad Protective Liability Insurance** shall be purchased on behalf of the Railroad Company with limits of $2,000,000 each occurrence; $6,000,000 aggregate applying separately to each annual period for lines without passenger trains. If the line carries passenger train(s), railroad protective liability insurance shall be purchased on behalf of the Railroad Company with limits of $5,000,000 each occurrence; $10,000,000 aggregate applying separately to each annual period.

Coverage shall be limited to damage suffered by the railroad on account of occurrences arising out of the work of the Contractor on or about the railroad right-of-way, independent of the railroad's general supervision or control, except as noted in paragraph 4 below.

Coverage shall include:

(1) death of or bodily injury to passengers of the railroad and employees of the railroad not covered by State workmen's compensation laws,

(2) personal property owned by or in the care, custody or control of the railroads,

(3) the Contractor, or any of the Contractor's agents or employees who suffer bodily injury or death as a result of acts of the railroad or its agents, regardless of the negligence of the railroads, and

(4) negligence of only the following classes of railroad employees:

(i) any supervisory employee of the railroad at the job site

(ii) any employee of the railroad while operating, attached to, or engaged on, work trains or other railroad equipment at the job site which are assigned exclusively to the Contractor, or

(iii) any employee of the railroad not within (i) or (ii) above who is specifically loaned or assigned to the work of the Contractor for prevention of accidents or protection or property, the cost of whose services is borne specifically by the Contractor or Governmental authority.

(b) **Regular Contractor's Liability**, including subcontractors, XCU and railroad contractual with limits of $1,000,000 each occurrence; $2,000,000 aggregate. **Automobile** with limits of $1,000,000 combined single limit any one accident; **Workers' Compensation and Employer's Liability** - statutory and $100,000 each accident; $100,000 each employee; $500,000 policy limit. **Excess/Umbrella Liability** $5,000,000 each occurrence; $5,000,000 aggregate. All coverage to be issued in the name of the Contractor shall be so written as to furnish protection to the Contractor respecting the Contractor's operations in performing work covered by the contract. Coverage shall include protection from damages arising out of bodily injury or death and damage or destruction of property which may be suffered by persons other than the Contractor's own employees.

In addition, the Contractor shall provide for and on behalf of each subcontractor by means of a separate and individual liability and property damage policy to cover like liability imposed upon the subcontractor as a result of the subcontractor's operations in the same amounts as contained above; or, in the alternative each subcontractor shall provide same.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-107-3 **CODE: (IS)**

DATE: 02/14/2006

SUBJECT: Contractor's Protection Plan

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-107.22.1--Contractor's Protection Plan. After item number 3 in Subsection 107.22.1 on page 65, add the following:

4. A copy of the certification for the Contractor's Certified Erosion Control Person for monitoring and maintaining the effectiveness of the erosion control plan, including NPDES permit requirements.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-107-6

DATE: 11/16/2007

SUBJECT: Legal Relations and Responsibility to Public

After Subsection 907-107.15 on page 1, add the following:

907-107.17--Contractor's Responsibility for Work. Delete the fifth sentence of the fifth paragraph of Subsection 107.17 on page 63 and substitute the following:

The eligible permanent items shall be limited to traffic signal systems, changeable message signs, roadway signs and sign supports, lighting items, guard rail items, delineators, impact attenuators, median barriers, bridge railing or pavement markings. The eligible temporary items shall be limited to changeable message signs, guard rail items, or median barriers.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-107-6 **CODE: (IS)**

DATE: **07/03/2007**

SUBJECT: **Legal Relations and Responsibility to Public**

Section 107, Legal Relations and Responsibility to Public, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-107.02--Permits, Licenses and Taxes. Delete in toto Subsection 107.02 on page 49 and substitute the following:

The Contractor or any Subcontractor shall have the duty to determine any and all permits and licenses required and to procure all permits and licenses, pay all charges, fees and taxes and issue all notices necessary and incidental to the due and lawful prosecution of the work. At any time during the life of this contract, the Department may audit the Contractor's or Subcontractor's compliance with the requirements of this section.

The Contractor or any Subcontractor is advised that the "Mississippi Special Fuel Tax Law", Section 27-55-501, et seq. and the Mississippi Use Tax Law, Section 27-67-1, et seq., and their requirements and penalties, apply to any contract or subcontract for construction, reconstruction, maintenance or repairs, for contracts or subcontracts entered into with the State of Mississippi, any political subdivision of the State of Mississippi, or any Department, Agency, Institute of the State of Mississippi or any political subdivision thereof.

The Contractor or any Subcontractor will be subject to one or more audits by the Department during the life of this contract to make certain that all applicable fuel taxes, as outlined in Section 27-55-501, et seq., and any sales and/or use taxes, as outlined in Section 27-67-1, et seq. are being paid in compliance with the law. The Department will notify the Mississippi State Tax Commission of the names and addresses of any Contractors or Subcontractors.

907-107.15--Third Party Beneficiary Clause. In the first sentence of the first paragraph of Subsection 107.15 on page 61, change "create the public" to "create in the public".

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-108-11 **CODE: (IS)**

DATE: **04/21/2006**

SUBJECT: **Prosecution and Progress**

Section 108, Prosecution and Progress, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-108.01--Subletting of Contract.

907-108.01.1--General. At the end of the last paragraph of Subsection 108.01.1 on page 73, add the following:

The Engineer will have the authority to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to make prompt payment within 15 calendar days as required above, or failure to submit the required OCR-484 Form, Certification of Payments to Subcontractors, which is also designed to comply with prompt payment requirements.

907-108.02--Notice To Proceed. Delete the fourth paragraph of Subsection 108.02 on page 75 and substitute the following:

Upon written request from the Contractor and if circumstances permit, the Notice to Proceed may be issued at an earlier date subject to the conditions stated therein. The Contractor shall not be entitled to any monetary damages or extension of contract time for any delay claim or claim of inefficiency occurring between the early issuance Notice To Proceed date and the Notice to Proceed date stated in the contract.

907-108.06.1.2--Contract Time Assessment. At the end of the eighth paragraph of Subsection 108.06.1.2 on page 81, add the following:

When the approved progress schedule indicates that a controlling phase(s) is to be completed prior to December 1 and the physical features of the phase(s) have not been satisfactorily completed, beginning on December 1 the miscellaneous phase will be shown as the only active phase during the months of December, January, and February. Under this condition, time units, monthly time units divided by monthly calendar days, will be assessed in accordance with the applicable column in the TABLE OF TIME UNITS. If the physical features of the phase(s) have not been completed by March 1, the phase will resume as a controlling phase and time assessment will be made accordingly.

Delete the fourth and fifth sentence of the thirteenth paragraph of Subsection 108.06.1.2 on page 82, and substitute the following:

In the event mutual agreement cannot be reached, the Contractor will be allowed a maximum of 25 calendar days following the Contractor's receipt of the monthly report in question to file a protest Notice of Claim in accordance with the provisions of Subsection 105.17. Otherwise, the Engineer's assessment shall be final unless mathematical errors of assessment are subsequently found to exist.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-108-13 **CODE: (SP)**

DATE: 01/25/2008

SUBJECT: Liquidated Damages Table

PROJECT: ER-9354-00 (002) / 104637301 & SP-9354-00 (002) / 104637302 -- Hancock County

Section 108, Prosecution and Progress, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby modified as follows:

907-108.07--Failure to Complete the Work on Time. Delete the table in Subsection 108.07 on page 85, and substitute the following:

The liquidated damages for this project shall be **$ 3,500.00** per calendar day.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-108-15 **CODE: (SP)**

DATE: 09/20/2007

SUBJECT: Cessation of Contract Time

Section 108, Prosecution and Progress, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-108.06--Determination and Extension of Contract Time.

907-108.06.2--Based on Calendar Date Completion. After Subsection 108.06.2.1 on page 85, add the following:

907-108.06.2.2--Cessation of Contract Time. When the Engineer by written notice schedules a final inspection, time will be suspended until the final inspection is conducted and for an additional 14 calendar days thereafter. If after the end of the 14-day suspension all necessary items of work have not been completed, time charges will resume. If the specified completion date had not been reached at the time the Contractor called for a final inspection, the calendar day difference between the specified completion date and the date the Contractor called for a final inspection will be added after the 14-day period before starting liquidation damages. If a project is on liquidated damages at the time a final inspection is scheduled, liquidated damages will be suspended until the final inspection is conducted and for seven (7) calendar days thereafter. If after the end of the 7-day suspension all necessary items of work have not been completed, liquidated damages will resume. When final inspection has been made by the Engineer as prescribed in Subsection 105.16 and all items of work have been completed, the daily time charge will cease.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-109-3

DATE: 11/21/2006

SUBJECT: Changes in Material Costs

After the last paragraph of Subsection 907-109.06.1 on page 1, add the following:

907-109.07--Changes in Material Costs. Delete the second sentence of the first paragraph of Subsection 109.07 on page 95, and substitute the following:

When a pay item on the bid sheets indicate that an adjustment is allowed and when a notice to bidders is included in the contract showing current monthly base prices, an adjustment will be provided as follows:

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-109-3 **CODE: (IS)**

DATE: 04/21/2006

SUBJECT: Partial Payment

Section 109, Measurement and Payment, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-109.04--Extra and Force Account Work. Delete the first sentence of the second paragraph of Subsection 109.04 under (d) on page 92 and substitute the following:

In the event an agreement cannot be reached for a particular piece of equipment, the book entitled "Rental Rate Blue Book For Construction Equipment" as published by EquipmentWatch® and is current at the time the force account work is authorized will be used to determine equipment ownership and operating expense rates.

907-109.06--Partial Payment.

907-109.06.1--General. Delete the fourth and fifth sentences of the third paragraph of Subsection 109.06.1 on page 94, and substitute the following:

In the event mutual agreement cannot be reached, the Contractor will be allowed a maximum of 25 calendar days following the Contractor’s receipt of the monthly estimate in question to file in writing, a protest Notice of Claim in accordance with the provisions Subsection 105.17. Otherwise, the Engineer's estimated quantities shall be considered acceptable pending any changes made during the checking of final quantities.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-213-2 **CODE: (IS)**

DATE: 01/25/2008

SUBJECT: Agricultural Limestone

Section 907-213, Fertilizing, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-213.05--Basis of Payment. Delete the first sentence of the first paragraph of Subsection 213.05 on page 136 and add the following as the first paragraph of this subsection.

Hard rock agricultural limestone will be paid for at the contract unit price per ton. Hard rock agricultural limestone with a relative neutralizing value (RNV), determined in accordance with Subsection 907-715-02.2.1.3, of between 60.0% and 62.9% will be paid for at half (½) the contract unit price per ton. No payment will be made for hard rock agricultural limestone with an RNV less than 60.0%.

Delete the first pay item listed on page 137 and substitute the following:

907-213-A: Agricultural Limestone - per ton

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-225-1

DATE: 04/29/2008

SUBJECT: Grassing

Delete the first paragraph of Subsection 907-225.05 on page 1 and substitute the following:

Hard rock agricultural limestone will be paid for at the contract unit price per ton. Hard rock agricultural limestone with a relative neutralizing value (RNV), determined in accordance with Subsection 907-715-02.2.1.3, of between 60.0% and 62.9% will be paid for at half (½) the contract unit price per ton. No payment will be made for hard rock agricultural limestone with an RNV less than 60.0%.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-225-1 **CODE: (IS)**

DATE: 09/23/2004

SUBJECT: Grassing

Section 907-225, Grassing, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-225.04--Method of Measurement. After the second sentence of Subsection 225.04 on page 163, add the following:

Acceptable quantities of agricultural limestone will be measured by the ton.

907-225.05--Basis of Payment. After the first paragraph of Subsection 225.05 on page 163, add the following:

Agricultural limestone will be paid for at the contract unit price per ton. Grade "A" agricultural limestone with an equivalent neutralizing value (ENV), determined in accordance with Subsection 907-715-02.2.1.3, of between 60.0% and 62.9% will be paid for at half (½) the contract unit price per ton. No payment will be made for Grade "A" agricultural limestone with an ENV less than 60.0%.

Delete the first pay item listed on page 163 and substitute the following:

907-225-A: Grassing - per acre

907-225-B: Agricultural Limestone - per ton

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-226-1 **CODE: (IS)**

DATE: 06/23/2004

SUBJECT: Temporary Grassing

Section 907-226, Temporary Grassing, is hereby added to and made part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-226 -- TEMPORARY GRASSING

907-226.0l--Description. This work consists of furnishing, transporting, placing, plant establishment and all work necessary to produce rapid-growing grasses, grains or legumes to provide an initial, temporary cover of grass. This work includes ground preparation, fertilizing, seeding and mulching necessary to establish a satisfactory growth of temporary grass.

The Engineer or the plans will designate areas to be temporarily grassed. Any other areas the Contractor desires to grass will be measured for payment on if agreed upon by the Engineer.

907-226.02--Materials.

907-226.02.1--Fertilizers. Fertilizers for purposes of these specifications shall be understood to include standard manufactured products consisting of single or combination ingredients and agricultural limestone.

All fertilizer shall comply with the State fertilizer laws and the requirements of these specifications.

Fertilizers shall meet the requirements of Subsection 715.02.

907-226.02.2--Seeds. Seeds shall meet the requirements of Subsection 715.03, subject to the provisions of this subsection. The Contractor shall acquire seed from persons registered with the Mississippi Department of Agriculture and Commerce.

Except for the germination requirements, bags of seeds properly labeled or tagged according to law and indicating characteristics meeting or exceeding the requirements of Subsection 715.03 will be acceptable for planting.

The Contractor should provide adequate dry storage facilities for seeds, and shall furnish access to the storage for sampling stored seed.

907-226.02.3--Mulching. The vegetative materials for mulch shall meet the requirements of Subsection 715.05.

When used, bituminous material for mulch shall be Emulsified Asphalt, Grade SS-1, meeting the requirement of Subsection 702.07.

907-226.03--Construction Requirements. When the payment for temporary grassing is made using individual pay items, the rate of application shall not exceed the rate shown on the temporary vegetation schedule, unless otherwise approved by the Engineer. Any unauthorized overage due to increased application rates will not be measured for payment.

907-226.03.1--Ground Preparation.

907-226.03.1.1--General. Any equipment used for ground preparation shall be approved units suitable to perform the work and subject to the requirements of Subsection 108.05.

Light ground preparation should be used on areas where seeding is required to improve the coverage of partially vegetated areas.

907-226.03.1.2--Light Ground Preparation. Light ground preparation consists of scratching the surface with a close-tooth harrow, disk-harrow, or similar equipment. The depth of scratching should be at least three-quarters inch but not deep enough to damage existing grasses of the type being planted.

Aerating, moistening, or otherwise bringing the soil to a suitable condition for ground preparation shall be considered as incidental to the work and will not be measured for separate payment.

907-226.03.2--Fertilizing. The Contractor shall furnish all equipment necessary to properly handle, store, uniformly spread, and incorporate the specified application of fertilizer.

The Contractor shall incorporate fertilizer at a rate of 500 pounds per acre of 13-13-13 commercial fertilizer. The equivalent rate of other type fertilizers will be allowed if the equivalent percentages of Nitrogen, Phosphorus and Potassium are obtained. Fertilization shall be applied uniformly on the areas to be planted or seeded and uniformly incorporated into the soil.

Fertilizers should be applied on individual areas of not more than three acres.

All fertilizer should be incorporated within 24 hours following spreading.

907-226.03.3--Seeding.

907-226.03.3.1--General. Prior to planting the seeds, ground preparation and fertilizing should have been satisfactorily performed.

The required type of seeds, recommended rates of application and recommended planting dates of seeds are shown in the vegetation schedule on the plans. It is the Contractor's responsibility to apply an ample amount of each type of seed to produce a satisfactory growth of grass and of the seed type required.

Legume seeds should be treated in accordance with Subsection 715.03.4 immediately before sowing. Seeds should be uniformly sown over the entire area with mechanical seeders. Seeds of different sizes may necessitate separate sowing. When legume seeds become dry, they should be reinoculated.

Seeding should not be done during windy weather or when the ground is frozen, extremely wet, or in an untillable condition.

All seeds should be covered lightly with soil by raking, rolling, or other approved methods, and the area compacted with a cultipacker.

907-226.03.3.2--Plant Establishment. Plant establishment shall consist of preserving, protecting, watering, reseeding, and other work necessary to keep the seeded areas in satisfactory condition.

Areas requiring reseeding should be prepared and seeded and all other work performed as if the reseeding was the initial seeding. The types and application rates of fertilizer will be at the discretion of the Contractor.

907-226.03.3.3--Growth and Coverage. It shall be the Contractor's responsibility to provide satisfactory growth and coverage of grasses, legumes, or combination produced from the specified seeding.

Growth and coverage on seeded areas will be considered to be in reasonably close conformity with the intent of the contract when the type of vegetation specified, exclusive of that from seeds not expected to have germinated and shows growth at that time, has reached a point of maturity where stems or runners overlap adjacent similar growth in each direction over the entire area.

907-226.03.4--Mulching.

907-226.03.4.1--Equipment. Mulching equipment should be capable of maintaining a constant air stream which will blow or eject controlled quantities of mulch in a uniform pattern. If asphalt is used, a jet or spray nozzle for applying uniform, controlled amounts of asphalt to the vegetative material as it is ejected should be located at or near the discharge spout.

Mulch stabilizers should consist of dull blades or disks without camber and approximately 20 inches in diameter. The disks should be notched, should be spaced at approximately 8-inch intervals, and should be equipped with scrapers. The stabilizer should weigh approximately 1000 to 1200 pounds, should have a working width of no more than eight feet, and should be equipped with a ballast compartment, so that weight can be increased.

907-226.03.4.2--Placement of Vegetative Mulch. If required, mulching should be placed uniformly on designated areas within 24 hours following seeding unless weather conditions are such that mulching cannot be performed. Placement should begin on the windward side of areas and from tops of slopes. In its final position, the mulch should be loose enough to allow air to circulate but compact enough to partially shade the ground and reduce erosion.

The baled material should be loosened and broken thoroughly before it is fed into the machine to avoid placement of unbroken clumps.

907-226.03.4.3--Rates of Application and Anchoring Mulch. The recommended rate of application of vegetative mulch shall be as shown in the vegetation schedule in the plans. The mulch should be anchored by either the use of a mulch stabilizer or by tacking with bituminous material. If a mulch stabilizer is used, the mulch should be punched into the soil for a minimum depth of one inch. If bituminous material is used, the rate of application should be 150 gallons per acre.

Where steep slopes or other conditions are such that anchoring cannot be performed satisfactory with a mulch stabilizer, the Contractor may elect to use bituminous material applied at the time or immediately following the mulch placement.

When mulch stabilizers are used, anchoring the mulch should be performed along the contour of the ground surface.

907-226.03.4.4--Protection and Maintenance. The Contractor should take every precaution to prevent unnecessary foot and vehicular traffic.

907-226.04--Method of Measurement. When a pay item for temporary grassing is included in the plans, temporary grassing will be measured by the acre. Acceptance will be based on a satisfactory growth and coverage of seeds planted. When a pay item for temporary grassing is not included in the plans, temporary grassing shall be measured for payment using the appropriate pay items in the contract.

907-226.05--Basis of Payment. When a pay item for temporary grassing is included in the plans, temporary grassing, measured as prescribed above, will be paid for at the contract unit price per acre, which will be full compensation for all required materials, equipment, labor, testing and all work necessary to establish a satisfactory growth of grass.

Payment will be made under:

907-226-A: Temporary Grassing - per acre

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-227-5 **CODE: (SP)**

DATE: 05/23/2008

SUBJECT: Hydroseeding For Temporary Grassing

Section 907-227, Hydroseeding, is hereby added to the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-227 -- HYDROSEEDING

907-227.0l--Description. This work consists of furnishing, transporting, placing, plant establishment and all work necessary to produce rapid-growing grasses, grains or legumes to provide an initial temporary cover of grass. The seeds, fertilizers, tackifier, and mulch shall be incorporated using the hydroseeding process. These items shall be combined into a mixture and force-applied to the areas to be grassed.

907-227.02--Materials. The Contractor shall, prior to application, furnish the Engineer with invoices of all materials used in the grassing operation.

907-227.02.1--Fertilizers. Fertilizers for purposes of these specifications shall be understood to include standard manufactured products consisting of single or combination ingredients.

All fertilizer shall comply with the State fertilizer laws and the requirements of these specifications.

Fertilizers shall meet the requirements of Subsection 715.02.

907-227.02.2--Seeds. Seeds shall meet the requirements of Subsection 715.03, subject to the provisions of this subsection. The Contractor shall acquire seed from persons registered with the Mississippi Department of Agriculture and Commerce.

Except for the germination requirements, bags of seeds properly labeled or tagged according to law and indicating characteristics meeting or exceeding the requirements of Subsection 715.03 will be acceptable for planting.

The Contractor should provide adequate dry storage facilities for seeds, and shall furnish access to the storage for sampling stored seed.

907-227.02.3--Mulching. The rate of application of fiber mulch shall be as recommended by the manufacture of the fibers mulch.

907-227.02.3.1--Wood Fiber Mulch. Wood fiber mulch shall be made from wood chip particles manufactured particularly for discharging uniformly on the ground surface when dispersed by a hydraulic water sprayer. It shall remain in uniform suspension in water under agitation and blend with grass seed and fertilizer to form a homogeneous slurry. The fibers shall intertwine physically to form a strong moisture-holding mat on the ground surface and allow rainfall to percolate the underlying soil. The fiber material shall be heat processed so as to contain no germination or growth-inhibiting factors. The mulch shall be dyed an appropriate color to facilitate the application of material using non-toxic dye.

907-227.02.3.2--Cellulose Fiber Mulch. Cellulose fiber mulch consist of recycled magazine stock products which are shredded into small pieces particular for application by hydraulic seeding equipment. It shall mix readily and uniformly under agitation with water and blend with grass seed and fertilizer to form a homogeneous slurry. When applied to the ground surface, the material shall form a strong moisture-holding mat, allow rainfall to percolate the underlying soil and remain in place until the grass root system is established. The material shall contain no growth inhibiting characteristic or organisms. The mulch shall be dyed an appropriate color to facilitate the application of material using non-toxic dye.

907-227.02.3.3--Wood/Cellulose Fiber Mulch. Wood/cellulose fiber mix hydroseeding mulch shall consist of a combination of the above wood and cellulose fibers at a ratio recommended by the manufacturer of the products.

907-227.03--Construction Requirements.

907-227.03.1--Ground Preparation. No ground preparation will be required.

907-227.03.2--Fertilizing. The Contractor shall furnish all equipment necessary to properly handle, store, uniformly spread, and incorporate the specified application of fertilizer.

The Contractor shall incorporate bag fertilizer at a rate of 1000 pounds per acre of 13-13-13 commercial fertilizer. The equivalent rate of other type fertilizers will be allowed if the equivalent percentages of Nitrogen, Phosphorus and Potassium are obtained. Any changes in the type or rate of application of the fertilizers shall be approved by the Engineer prior to being incorporated.

907-227.03.3--Seeding.

907-227.03.3.1--General. The Contractor shall use the temporary vegetation schedule in the plan for the correct types of seed and application rates, unless otherwise noted or approved by the Engineer.

When a temporary vegetation schedule is not shown in the plans, the following types of seed and application rates may be used.

Spring & Summer

Browntop Millet ---------- 20 pounds per acre - April 1 to August 31

Fall & Winter

Rye Grass ---------- 25 pounds per acre - September 1 to March 31
Oats ---------- 90 pounds per acre - September 1 to December 15

907-227.03.3.2--Plant Establishment. Plant establishment shall consist of preserving, protecting, watering, reseeding, mowing, and other work necessary to keep the seeded areas in satisfactory condition.

Areas requiring reseeding should be prepared and seeded and all other work performed as if the reseeding was the initial seeding. The types and application rates of fertilizer will be at the discretion of the Contractor.

907-227.03.3.3--Growth and Coverage. It shall be the Contractor's responsibility to provide satisfactory growth and coverage of grasses, legumes, or combination produced from the specified seeding.

Growth and coverage on seeded areas will be considered to be in reasonably close conformity with the intent of the contract when the type of vegetation specified, exclusive of that from seeds not expected to have germinated and shows growth at that time, has reached a point of maturity where stems or runners overlap adjacent similar growth in each direction over the entire area.

907-227.03.4--Mulching. At the Contractor's option, mulch may be wood fiber, cellulose fiber, or a mixture of wood and cellulose fibers. The mulch shall be applied at the rate of 1,500 pounds per acre in a mixture of water, seed and fertilizer. Any changes in the rate of application of the mulch shall be approved by the Engineer prior to its use.

907-227.03.5--Equipment. Hydraulic equipment shall be used for the application of fertilizers, seeds and slurry of the prepared mulch. This equipment shall have a built-in agitation system with an operating capacity sufficient to agitate, suspend, and homogeneously mix slurry of the specified amount of fiber, fertilizer, seed and water. The slurry distribution lines shall be large enough to prevent stoppage. The discharge line shall be equipped with a set of hydraulic spray nozzles, which will provide even distribution of the slurry on the various areas to be seeded.

The seed, fertilizer, mulch and water shall all be combined into the slurry tank for distribution of all ingredients in one operation as specified herein. The materials shall be combined in a manner recommended by the manufacturer. The slurry mixture shall be so regulated that the amounts and rates of application shall result in a uniform application of all materials at rates not less than the amounts specified. Using the color of the mulch as a guide, the equipment operator shall spray the prepared seedbed with a uniform visible coat. The slurry shall be applied in a sweeping motion, in an arched stream, so as to fall like rain, allowing the mulch to build upon each other until an even coat is achieved.

907-227.03.6--Protection and Maintenance. The Contractor should take every precaution to prevent unnecessary foot and vehicular traffic.

907-227.04--Method of Measurement. Hydroseeding, complete and accepted, will be measured by the acre. No separate payment will be made for seeds, fertilizers, or mulch. Acceptance will be based on a satisfactory growth and coverage of seeds planted.

907-227.05--Basis of Payment. Hydroseeding, measured as prescribed above, will be paid for at the contract unit price per acre, which will be full compensation for all required materials, equipment, labor, testing and all work necessary to establish a satisfactory growth of grass.

Payment will be made under:

907-227-A: Hydroseeding, Temporary Grassing - per acre

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-230-8 **CODE: (SP)**

DATE: 12/05/2006

SUBJECT: Tree and Shrub Planting

Section 230, Tree and Shrub Planting, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-230.04--Method of Measurement: Delete the last five paragraphs of Subsection 230.04 on pages 169 & 170 regarding the sequence for measurement of payment and substitute the following:

Measurement for payment will be made in the following sequence:

When plants have been planted and are in a healthy condition in accordance with the contract, seventy-five percent (75%) of the bid price for that species of plant material meeting the requirements of the contract will be allowed.

When the inspection of plants at the end of the growing season has been conducted and the replacement of any dead or unsatisfactory plant material has been made, ninety percent (90%) of the bid price for that species of plant material meeting the requirements of the contract will be allowed.

When the final inspection of the project has been conducted and the replacement of any dead or unsatisfactory plant material has been made, and upon final release of maintenance, one-hundred percent (100%) of the bid price will be allowed for plant material meeting the requirements of the contract.

The Plant Establishment Period shall begin upon the date that the Engineer determines plant material installation has been acceptably completed, including staking/guying and mulching, and continues through the dates noted below:

PLANT ESTABLISHMENT PERIOD

Date of Installation Completion, From and Including	Establishment Period Beyond Installation Completion, (Growing Season) To and Including
August 2nd - November 1st	240 calendar days
November 2nd - January 1st	180 calendar days
January 2nd - May 1st	120 calendar days
May 2nd - August 1st	90 calendar days

Where feasible in the opinion of the Engineer, the Contractor may install plant material well in advance of project completion, in order that the Plant Establishment Period may run concurrent with the Contract Time. However, no matter what date the Plant Establishment Period conclude, the Contractor will be required to maintain healthy plants until final inspection of the entire project.

No contract time or liquidated damages will be charged during the plant establishment period if, and only if, all items of work on the project have been completed.

907-230.05--Basis of Payment. Add the "907" prefix to the pay items numbers listed on page 170.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-260-1 **CODE: (SP)**

DATE: 04/01/2008

SUBJECT: Lift Station

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 907-260, Lift Station, is hereby added to and made part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-260 -- LIFT STATION

907-260.01--Description. This work consists of furnishing all labor, material, equipment and related items necessary to install a pump station(s) and pump station wet well as shown on the Plans.

Pump station wet well shall be constructed of concrete unless otherwise directed by the Engineer or the Plans.

After completion of the Field Quality Control test, Contractor shall submit the results of all tests and certification from the pump manufacturer and the control manufacturer that their equipment is properly installed and is functioning properly.

907-260.02--Materials. Materials to construct the lift station and accessories shall meet the following requirements.

Concrete and Reinforcing Steel: Per Sections 601 & 602 of the Standard Specifications.

Valve pit: Concrete or prefabricated fiberglass with anti-flotation collar.

Pump(s): Each pump shall meet the following design requirements.

Lift Station Number	Flow Rate gpm	Total Dynamic Head feet	Pump Rotation Speed rpm	Solids Passage inches	Suction Diameter inches	Discharge Diameter inches	Motor Size horsepower	Impeller Diameter inches	No. Of Pumps
3	550	42	1750	4	4	4	20	8.25	2
4	150	38	1750	3	3	3	7.5	7.0	2

Pump(s) shall be designed for continuous operation and will be operated continuously under normal service.

Submittals for pump approval must include the name of manufacturer and actual manufacturing location of each pump motor to be furnished. A copy of pump warranty shall be provided at pump start-up.

Manufacturer of pump equipment shall comply with the requirements of the ISO 9001 Quality System. Compliance shall be verified by an independent certification agency approved by the International Organization for Standardization. Documentation shall be submitted for approval showing compliance with this requirement.

Pump(s), complete with motor, slide-away couplings and all other specified accessories and appurtenances shall be furnished by the same pump manufacturer to insure compatibility and integrity of the individual components and provide the specified warranty for all components.

Pump manufacturer shall warrant the pump and motor to the Owner against defects in workmanship and materials for a period of five years under normal use and service. The warranty shall be cover 100% of all parts and labor for a period of five (5) years. Warranty shall be in published form and shall apply to all pumps furnished.

Pump design shall be an end-type, vertical suction and horizontal discharge and shall be completely open from suction to discharge with no wearing rings or impeller faceplates. All flow path clearances with the pump shall be equal to or greater than the discharge diameter, so that all solids which will pass through the suction will pass through the pump. The discharge connection shall be located on the pump case centerline. Volute shall be manufactured of cast-iron material ASTM A532-93A.

Impeller shall be of the recessed design and shall be mountd completely out of the flow path between the suction inlet and discharge connection, so that the solids pump are not required to flow through the impeller. Impeller shall be keyed to the shaft and secured by an impeller bolt. Impeller shall be manufactured of High-chrome/ ni-hard material (650 Brinell minimum). Impeller back plate shall be manufactured of cast-iron material, ASTM A48, Class 25 or 30.

Pump Slide A-way Coupling shall be designed to allow removal of pump without personnel entering the wet well or manually disconnecting the pump form the discharge pipe. Slide away coupling shall consist of a foot mounted discharge elbow and adapter, steel base plate, upper and lower guide rail supports, lifting yoke and stainless steel lifting chain. The coupling halves shall be angled and the locking lugs shall be adjustable in order to eliminate any mechanical looseness that could cause leakage. Coupling shall be designed for use with 2 inch diameter, stainless steel, schedule 40, guide rails. Base plate shall be provided with adjustable stops to support the pump weight in order to eliminate unnecessary stain on the coupling. Foot mounted discharge elbow and adapter shall be cast-iron, ASTM A48 Class 30. Coupling shall include a self-energizing, U-cupped gasket to provide positive sealing under all conditions. Coupling shall be approved by Underwriters Laboratory for operation in Class 1, Group D, Division 1 hazardous locations.

Motor shall be a submersible type, explosion-proof, 230 volt, 3-phase, 60 cycle and directly connected to the pump. Motor shall confirm to National Electrical Manufacturers Association

standards and specifications and be Factory Mutual approved. Motor shall be provided with thrust and radial bearings of sufficient size to carry the entire load which may be imposed upon it under all operating conditions. Motor shall include two mechanical seals. The lower (outer) mechanical seal shall be located to exclude the pumped material from entering the lower cavity of the motor. The upper (inner) mechanical seal shall be located in an oil filled chamber such that it excludes any moisture from entering the winding compartment of the motor. Motor shall include two thermal overload protectors, which shall be imbedded in the motor windings and connected to the motor starter in such a way that the motor automatically shuts down in the event of overload. Motor shall include dual moisture probes located in the oil chamber, which shall be connected to a customer-supplied alarm to indicate the presence of moisture in the seal chamber.

The Contractor shall furnish the following special items.

Furnish one set of any special tool required to service all pumps. The following spare parts shall be submitted for each type of pump supplied:

- 1 set seals (one upper, one lower)
- 1 set O rings
- 1 stationary wear ring
- 1 rotating wear ring
- 1 impeller
- 1 packing
- 1 cable entry set (two washers and one rubber seal)
- 1 set bearings

For each pump furnish the services of a pump manufacture representative to:

- assist in installation,
- supervise the initial operation (functional testing),
- make final adjustment
- provide certification of installation,
- provide sufficient supervision, data and information to train operators in the proper operation and maintenance of the pump(s) furnished.

Piping: Per Notice to Bidders No. Piping.

Valves: Per Notice to Bidders piping.

Pump Guide Rail Assembly: Each pump shall be provided with a stainless steel guide rail assembly (guide rail supports, anchor brackets and guide rails) designed so that pump automatically connects to the discharge base elbow when the pump is lowered into place. Guide rails shall be 2-inch diameter, stainless steel, schedule 40.

Pump Pit Access Hatch: Access hatch shall be sized by the pump manufacturer for a minimum opening as indicated on the drawings, or larger as required to remove the pump.

Access hatch shall be ¼-inch thick aluminum diamond plate reinforced for a live load that meets H20 requirements.

Access hatch shall be equipped with a flush lifting handle that does not protrude above the cover, and a 316 stainless steel hold open arm with red vinyl grip that automatically keeps the cover in its upright open position.

Access hatch shall have 316 stainless steel hinges and 316 stainless steel tamper resistant bolts with locknuts. A staple for a pad lock shall be supplied for security.

Access hatch frame shall be extruded aluminum with an integral anchor flange and door seal.

All anchor bolts shall be minimum 3/4-inch stainless steel. If aluminum support assemblies and brackets are furnished, they shall be isolated from the anchor bolts with nylon dielectric isolating sleeves and washers.

An adhesive backed vinyl material that protects the product during shipping and installation shall cover the entire top of the frame and cover.

Lifting Chain: Each pump shall be provided with a stainless steel lifting chain of adequate length and strength for raising and lowering the pump.

Electrical: Per Notice to Bidders No. 1670 and Plans.

Instrumentation and Controls: Relocate existing control panel and reuse existing sensors.

907-260.03--Construction Requirements. All pump station construction shall be performed in accordance with the specification and as shown on the Plans which includes pumps and control. Manufacturer's procedures, which are more stringent than those specified, shall be strictly followed.

The interior of the wet well shall be shall be painted per Notice to Bidder for System No. 39. The surface shall be inspected prior to installing the coating and any repairs or clean required made prior to the painting. The Contractor shall notify the Engineer 48-hours in advance of applying the coating to allow adequate time for the inspection.

Pump pit access hatch shall be installed in accordance with the manufacturer's instructions. It shall be painted per Notice To Bidders No. Painting for System No 27

Paint for concrete valve box: shall be per Notice To Bidders No. 1677 for System 19.

Paint of metal, non- stainless steel pipe shall be per Notice To Bidders No. 1677.

Upon completion of the installation of the pump station and the force main and subsequent to testing of the force main per these specifications, the Contractor shall conduct the following tests on the pump station.

1. Pump functional test of this specification.

2. Complete functional testing of pump controls including demonstration of proper sequencing and associated alarm conditions.

3. A one minute "dead head" test on each pump. Dead head test will be performed with a minimum two feet of liquid in the wet well and with the pump discharge valve closed. During this test the Contractor will measure and record the following.
   - Vertical distance from top of wet well to liquid surface -- beginning and end of test.
   - Discharge pressure gauge reading -- beginning and end of test.
   - Amperage for each electrical phase to motor.

4. A one minute pumping test for each pump. Pumping test will be performed with a minimum six feet of water in the wet well and the discharge valve fully open. The Contractor shall furnish water if insufficient sewage flow exists. During this test the Contractor will measure and record the following.
   - Was there flow into the wet well -- yes or no.
   - Vertical distance from top of wet well to liquid surface -- beginning and end of test.
   - Discharge pressure gauge reading -- beginning and end of test.
   - Amperage for each electrical phase to motor -- beginning and end of test.

During the test, the Contractor shall have the pump manufacturer's representatives on site to witness the testing.

Pump station will not be accepted until all pump and control panel functioning test have been passed, the "dead head" test for each pump is within plus / minus five percent of furnished curve pump dead head and pumping test results are within plus / minus five percent of furnished pump curve.

During the functional test, the Contractor shall have the pump manufacturer's representatives on site to witness the testing. The test shall include, but not necessarily be limited to, demonstration of the following:

- Complete functional testing of all pump controls
- Demonstration of proper operation of each pump, including the generation of a field head vs. capacity curve to compare with the factory performance test curve.
- Proper sequencing and associated alarm conditions

907-260.04--Method of Measurement. Lift station will be measured for payment as a lump sum price per lift station.

907-260.05--Basis of Payment. Lift station, measured as presribed above, will be paid for at the contract unit lump sum price per lift station, which price shall include all labor, materials, and incidentals necessary to complete the work.

For Lift Station Number 3, payment shall include the following items.

- Installation of wet well and associated pumps, guide rails and pipe
- Installation of valve pit and associated pipe, valves and concrete for anti-flotation collar.
- Connection of the two, 8 inch diameter, PVC, gravity sewer inlet pipes and connection of the one, 8 inch diameter, HDPE force main
- Installation of the structural steel platform including ladder, handrails, grating and grounding rods.
- Installation of the concrete slab beneath structural steel platform.
- Relocating of existing control panel from its present location to the top of the structural steel platform.
- Change out of the control panel motor overloads from two - 15 horsepower motors (existing) to two - 20 horsepower motors (new).
- Installation of security fence.
- Seeding of ground within fenced area.
- Execution of functional testing and any necessary repairs required by the functional testing.

For Lift Station Number 4, payment shall include the following items.

- Installation of wet well and associated pumps, guide rails and pipe
- Installation of valve pit and associated pipe, valves and concrete for anti-flotation collar.
- Connection of the two, 8 inch diameter, PVC, gravity sewer inlet pipes and connection of the one, 4 inch diameter, HDPE force main
- Installation of the wood platform.
- Relocating of existing control panel from its present location to the top of the wood platform.
- Change out of the control panel motor overloads from one - 5 horsepower motor (existing) to two – 7.5 horsepower motors (new). Control panel has provision for two motors.
- Execution of functional testing and any necessary repairs required by the functional testing.

Payment will be made under:

907-260-A: Lift Station, Description - lump sum

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-262-1 **CODE: (SP)**

DATE: 07/12/2007

SUBJECT: Santitary Sewer System

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 907-262, Santitary Sewer System, is hereby added to and made a part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-262--SANITARY SEWER SYSTEM

907-262.01--Description. This work consists of furnishing, installing and testing the pipe for use in gravity sewers system in accordance with the plans and specifications.

907-262.02--Materials. Conponents of the system shall meet the following requirements.

PCV Pipe: Pipe per ASTM D3034, SDR 26; PVC resin shall meet ASTM D1784. All pipe and service fittings shall be integral wall bell and spigot service per ASTM D3212.

Grout for Manhole Repairs: Cementitious cover or concrete mix with water plug, 80/20 mixture.

Gasket Rubber Ring: Fabricated from ethylene propylene rubber (EPR) per manufacturer's specification in conformance with ASTM F477.

Pipe to Manhole Connector: Watertight with a water stop and rubber gasket seals which meets ASTM C923.

Joint Restraint: Per Notice To Bidders No. 1671.

Casing Pipe: Per Special Provision 907-603-8.

Conflict Box: Per Notice To Bidders No. 1671.

Buried Pipe Line Identification: Per Notice To Bidders No. 1679.

907-262.03--Construction Requirements. Pipe shall be laid to the line and grade as indicated on the plans. PVC pipe shall be cut, made up, and installed in accordance with the pipe manufacturer's recommendations.

The foundation under the sewer line and/or appurtenances shall be constructed to prevent subsequent settlement. The foundation shall be approved by the Engineer prior to laying pipe. If required, install foundation stabilization material.

Pipe jointing will be accomplished in strict accordance with the manufacturer's recommendations. Only approved lubricants shall be used in making the joints. The pipe shall be laid with the spigot end of the pipe being downstream. Laying shall commence downstream and proceed upstream.

Sewer service lines shall be installed where shown on the Plans or where directed by the Engineer. The lines shall be constructed under the same specification as gravity sewers. Pipe, fittings and joints will be PVC as hereinbefore specified. The sewer service lines shall be connected to the sewer main with a wye branch and one eight bend or other methods approved by the Engineer. Cutting into the sewer main will not be permitted except in special approved cases. A minimum of 24 inches of cover will be required for sewer service lines.

Casing pipe shall be installed where shown on the Plans or where directed by the Engineer.

Conflict box shall be installed where shown on the Plans or where directed by the Engineer.

Field Quality Control. All inspections and testing shall be done after section to be tested has been backfilled and compacted but prior to reconnecting any property owner to service lateral. It is not expected that the entire new gravity sewer distribution system will be tested at one time. When a specific section is available it will be isolated and tested.

Alignment Test: Alignment will be checked with a light of sufficient intensity to be seen from one manhole to the next. Light must be seen from each direction. Sewer lines with defective grades shall be removed and replaced. Lighting must demonstrate that no offset has occurred. Alignment shall be checked no sooner than seven (7) days following installation. If the test section fails to pass the alignment test, the Contractor shall repair or replace all defective materials and / or workmanship at no additional cost and retest.

Deflection Test: A go / no-go mandrel with a diameter of 95 percent of the inside diameter of the pipe shall be passed through the pipe after the alignment check has been completed. Deflection shall be checked no sooner than 30 days following installation. If the test section fails to allow passage of the mandrel, the Contractor shall repair or replace all defective materials and / or workmanship at no additional cost and repeat the mandrel test.

Air Leakage Test: Air leakage test shall be perform in accordance with ASTM F1417 and these specifications. Test shall be conducted on every section between adjacent manholes. A relief valve (set at 5 psi) shall be provided on the pressuring equipment to avoid over- pressurizing and damaging the gravity sewer. After plugging all openings, check all pipe plugs with a soap solution to detect any air leakage. If leaks are found, release the air pressure, eliminate the leak(s) and start test procedure again.

Add air until internal pressure of sewer section is raised to 4.0 pounds per square inch gauge (psig). Maintain the air pressure between 3.5 psig and 4.5 psig until the air temperature inside the sewer section is stabilized with the pipe / ground temperature Disconnect the air supply and reduce the air pressure to 3.5 psig before starting test. If the ground water is higher than the top of the pipe, the test pressure shall be adjusted to account for the high ground water. The test pressure shall be increased by 0.43 psig per foot of ground water up to five feet of ground water. For ground water over five feet in depth, the water infiltration test shall be conducted in place of the air leakage test. Determine the time required for the air pressure to drop from 3.5 psig to 2.5 psig.

The time elapsed shall not be less than:

$T = 0.085 \times ([D \times K]/Q)$

where:
T = shortest time in seconds allowed for the air pressure to drop 1.0 psig
K = 0.000419 x D x L but not less than 1.0
Q = 0.0015 cubic feet per minute per square feet of internal pipe surface
D = measured average inside diameter of pipe in inches
L = length of test section in feet

Example calculation

L = 296 feet
D = 7.92 inches
K = 0.000419 x 7.92 x 296 or 0.982 which is less than 1.0. use 1.0 for T calculation
T = 0.085 x ([7.92 x 1]/0.0015) = 449 seconds = 7 minutes, 29 seconds

If service laterals are included in the test, their length may be ignored for computing required test time if the test time requirements are met. If the test section fails, time shall be recomputed to include all the alteral lengths using the following formula.

$$T = 0.085 \times \frac{(D_1^2 \times L_1) + (D_2^2 \times L_2) + \ldots + (D_n^2 \times L_n)}{(D_1 \times L_1) + (D_2 \times L_2) + \ldots + (D_n \times L_n)} \times (K/Q)$$

where:
T = shortest time in seconds allowed for the air pressure to drop 1.0 psig
K = 0.000419 x $[(D_1 \times L_1) + (D_2 \times L_2) + \ldots + (D_n \times L_n)]$ but not less than 1.0
Q = 0.0015 cubic feet per minute per square feet of internal pipe surface
D_1, D_2, etc. = measured average inside diameter of pipe in inches
L_1, L_2, etc. = length of test section in feet

If the recomputed test time is short enough to allow the section tested to pass, then the test section meets the requirements of this specification. If the pipe sections fails the air test, the

Contractor shall repair or replace all defective materials and / or workmanship at no additional cost and repeat the test. If requested by the Engineer, air testing may be replaced by infiltration or exfiltration test.

Water Exfiltration Test: The line being tested shall be plugged on the downstream end with a watertight plug. Any service lateral on the line shall also be plugged. The line will be filled with water such that the water level at the upper end of the section being tested stands two feet above the top of the sewer line or two feet above the level of ground water. The amount of water lost will be determined by measurement of the quantity added to return the water level to the original point. The tests shall run for at least two hours. The length of line to be tested in one test will be determined by the steepness of grade; however, the maximum length of test section shall be 1,000 feet.

Water Infiltration Test: In sections where the ground water level is two feet or more above the pipe for the entire section, the leakage test shall be made with "V" notch weirs or other device for volumetric measurement placed at the downstream end of the test section.

Allowable Leakage: Leakage shall not exceed 200 gallons per inch of pipe diameter per mile of line per 24 hour period for any section of line between successive manholes. If the rate of leakage exceeds the allowable leakage then the Contractor shall make necessary repairs and retest until leakage of section is within the allowable limit.

907-262.04--Method of Measurement. Pipe, of the size and type specified, will be measured by the linear foot. Sewer service assembly, casing pipe of the type specified, and initial testing of the type specified will be measured per each. Only the initial test will be measured for payment in each specific section (isolation section). Any re-testing will not be measured for payment.

907-262.05--Basis of Payment. Installation of pipe, measured as prescribed above, will be paid for at the contract bid price per the linear foot, which price shall be full compensation for all necessary excavation, sheeting, cribbing, shoring, bracing, and all equipment, labor, tools and incidentals necessary to complete the work.

Sewer service assembly, measured as prescribed above, will be paid for at the contract bid price per each initial test, which price shall include the costs for all labor, materials, necessary repairs required by the failed testing and any additional testing required of an isolated section, and all incidentals necessary to complete the work.

Payment will be made under:

907-262-A: __" Description Pipe *	- per lineal foot
907-262-B: __" Description Pipe, With Joint Restraint *	- per lineal foot
907-262-C: Sewer Service Assembly	- per each

907-262-D: _____' Casing Pipe - per each

907-262-E: Initial Alignment, Deflection and Pressure Test * - per each

907-262-F: Initial Exfiltration Test * - per each

907-262-G: Initial Infiltration Test * - per each

* Optional Description

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-263-1 **CODE: (SP)**

DATE: 07/13/2007

SUBJECT: High Density Polyethylene Force Main Pipe

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 907-263, Force Main Pipe, is hereby added to and made a part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-263--FORCE MAIN PIPE

907-263.01--Description. This work concsist of furnishing, installing and testing high density polyethylene (HDPE) pipe for use in potable and non-potable water, wastewater gravity sewers and force mains and storm sewers.

907-263.02--Materials.

Pipe: The pipe shall be fabricated from ultra-high molecular weight HDPE and shall have an ASTM D3350 Classification of Type III, Class C, Category 5, Grade P34.

The resin used to fabricate the pipe shall have a Plastic Pipe Institute (PPI) recommended hydrostatic stress rating of at least 800 psi at 73.4ºF and a PPI material designation of PE 3408. The material shall be of virgin quality, shall have a melt flow of less than 5.0 gms/10 minutes determined by ASTM D1238 and shall exceed 1000 hours on environmental stress crack resistance per ASTM D-1693.

The pipe shall be Polypipe as manufactured by Polypipe Industries, Gainesville, Texas; Driscopipe as manufactured by Performance Pipe, Plano, Texas; or an approved equal.

Fittings: Fittings shall be molded or fabricated from high density polyethylene. Fittings shall be molded in accordance with ASTM D1248, Type III, Class C, Category 5, Grade P34. Fabricated fittings shall be prepared from polyethylene pipe with a manufacturer recommended HDS rating of at least 730 psi based on material with 1460 psi design in accordance with ASTM D2837.

Joints: All pipe joints and fittings shall be joined together by Thermal Butt Fusion. Polyethylene pipe lengths, fittings and fanged connection to be used shall be of the same type, grade and class of polyethylene compound and shall be supplied by the same raw material supplier.

Pipe Classification: Diameter and standard dimension ratio for each application is given on the Plans.

Fabrication: The inside and outside surface of all material shall be free from nicks, scratches, and other surface defects and blemishes. The pipe shall be homogeneous throughout, free of any bubbles, voids, or inclusions. The jointing areas of each length of pipe shall be free from dents and gouges.

Source Quality Control: HDPE pipe shall have a minimum burst pressure at 73.4°F as determined by ASTM D-1599 and the following equation:

$$t = \frac{PD}{2S+P}$$

Where t = minimum thickness, in inches
P = burst pressure, in psi
D = outside diameter, in inches
S = hoop stress, in psi (1600)

The pipe shall not fail, balloon, burst or weep as defined in ASTM D-1598 when tested in accordance with Section 6(g) of ASTM D-2239 and under the following conditions:

Temperature (ºF)	Time (Hours)	Hoop Stress (psi)
73.4	1000	1500
150	1000	800
190	300	500

907-263.03--Construction Requirements. Each shipment of pipe shall be inspected and provisions made for a timely replacement of any damaged material. The pipe shall be unloaded by hand or using canvas slings to avoid damaging pipe. Pipe shall not be slid or dragged over an abrasive surface. Damaged material shall be replaced and removed from the site.

Pipe shall be stacked no higher than five feet (5') and support shall be provided to prevent bending of the pipe. Pipe stockpiled for more than 30 days shall be covered to protect it from the sun's rays. Air circulation shall be provided through the stockpile.

Contractor is responsible for pipe separation due to thermal expansion or contraction. The following table provides estimated thermal expansion per 100 linear feet of pipe based on a 70°F buried pipe temperature.

Temperature Variation From70ºF	Thermal Expansion, inches per 100 feet
0	0
10	1.5
20	2.8
30	4.3
40	5.7
50	7.2
60	8.5

Butt Fusion of pipe and fittings shall be performed in accordance with the pipe manufacturer's recommendations. The machine to bond the pipe shall be either furnished by the pipe manufacturer or certified by the pipe manufacturer.

Casing pipe shall be installed where shown on the Plans, specifications, or where directed by the Engineer.

Conflict boxes shall be installed where shown on the Plans, specifications, or where directed by the Engineer.

Buried line identification shall be installed where shown on the Plans.

All lines shall be hydrostatically tested at the pressure and on the test procedures specified in the specifications.

All new potable water lines shall be disinfected per the procedure specified in the specifications.

907-263.04--Method of Measurement. HDPE force main pipe of the type specified will be measured from end to end by the linear foot along their center lines.

907-263.05--Basis of Payment. HDPE force main pipe, measured as prescribed above, will be paid for by the contract unit price per linear foot, which price shall include the costs for all labor, materials, testing, and all incidentals necessary to complete the work..

Payment will be made under:

907-263-A: __" Diameter HDPE Force Main Pipe, SDR ___ - per linear foot

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-264-1 **CODE: (SP)**

DATE: 07/13/2007

SUBJECT: Natural Gas Distribution System

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 907-264, Natural Gas Distribution System, is hereby added to and made a part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-264--NATURAL GAS DISTRIBUTION SYSTEM

907-264.01--Description. This work consists of furnishing and installing complete a low pressure (up to 100 pounds per square inch gauge), polyethylene (PE), natural gas, distribution system. The system consists of distribution header up to 8-inch in diameter, service connections, tracer wire, valves, valve boxes, fittings, excess flow valves, anode boxes, etc.

907-264.02--Materials. The PE Pipe and Fittings shall be yellow, PE 3408, SDR 11 polyethylene made from virgin quality material conforming to the requirement of ASTM Desingation: D2513.

Clean rework material of the same type and grade, generated from the manufacturer's own pipe and fitting production may be used by the same manufacturer as long as the pipe produced meets all the requirements of the Specification.

Rework material shall not be used for manufacturing CTS tubing sizes. The pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions, blisters, dents, and other injurious defects.

Table 1 lists the pipe sizes that can be used for distribution main and service laterals.

TABLE 1
Pipe Sizes For Distribution Main And Service Laterals

Distribution Main Nominal Outside Diameter, inches	Service Lateral, Nominal Outside Diameter, inches
2 - IPS	0.5 - CTS
3 - IPS	0.75 - CTS
4 - IPS	1 - CTS
6 - IPS	1.5 - CTS
8 - IPS	2 - CTS

All CTS pipe and the-2 inch IPS pipe shall be supplied in coils. The coil shall consist of a single length of pipe. Intermediate joints are not allowed.

The 3-inch, 4-inch, 6-inch and 8-inch IPS pipe shall be supplied in 40 feet or longer straight lengths. Straight lengths shall consist of a single length of pipe without couplings or any intermediate joints.

Pipe markings shall be in a color that contrasts with that of the pipe and spaced at intervals not exceeding two feet (2'). All markings shall be legible and so applied as to remain legible under normal handling and installation practices.

Pipe markings shall consist of the following:

- the word "GAS",
- the designation "ASTM D2513",
- the manufacturer's name or trademark,
- the nominal pipe or tubing size, including the sizing system used, i.e. IPS, CTS, etc.,
- the type of material (i.e. PE 3408)
- SDR number,
- date of manufacturer or manufacturing code.

All PE fittings on the distribution main shall have "butt fusion" connections conforming to ASTM D3261. All fitting on the service lateral shall have mechanical connections conforming to ASTM D2513 and ASTM F1924.

Fitting used on the main distribution pipe shall be marked as follows:

- the designation "ASTM D3261",
- the manufacturer's name or trademark,
- the nominal pipe or tubing size, including the sizing system used, i.e. IPS, CTS, etc.,
- the type of material (i.e. PE 3408)
- SDR number,
- Date of manufacture or manufacturing code.

If the fitting size does not allow complete marking, marking may be omitted in the following sequence: size, date of manufacture, material designation, manufacturer's name or trademark.

Tapping Tee shall meet the following requirements:

- made from PE 3408,
- meet or exceed ASTM D2513 and CFR 49, Part 192,
- mechanical joint, CTS connection to service lateral.

Tapping tee shall be double locking design that eliminates potential separation between the tee and main due to either tee rotation or deflection of the main, Perfection Corporation "Permalock" or approved equal

Saddle Fusion shall be by Perfection Corporation, or approved equal.

Connection coupling on main distribution to same size and IPS (PE to PE, PE to cast-ion, PE to steel and PE to PVC) shall be Perfection Corporation "Permasert XL Large Diameter Mechanical Coupling", or approved equal. Material of construction shall be PE 3408. Connections of different sizes will be as shown in the Plans.

Table 2 provides valve characteristics for the distribution main and for the service laterals.

TABLE 2
Valve Characteristics For Distribution Main And Service Laterals

Characteristics	Main Distribution	Service Lateral
Valve type	Quarter turn, ball with flow / no flow indicator	Quarter turn, plug with flow / no flow indicator
Material of Construction	Polyethylene, PE 3408	Polyethylene, PE 3408
Valve operation	Manual	Manual
End connector design	Butt fusion	Mechanical
Standards to meet	ASTM D2513, ANSI / ASME B16.40, CFR 49-Part 192	ASTM D2513, ANSI / ASME B16.40, CFR 49-Part 192

Each valve shall be assembled so to operate smoothly and provide gas tight seal. Each valve shall be provided with a seal(s) protecting inner parts from ground water and foreign debris intrusion. Valve manufacture shall be Perfection Corporation, or approved equal.

Valve boxes shall be slip-type to adjust for different buried depths. Extension pieces, if required, shall be the manufacturer's standard type. The flange base of the cover shall be at least six inches above the pipe. The word "GAS" shall be cast into the top of the lid. Units shall be Mueller H-10364, Clow Corporation F-2452, or approved equal. All units shall be complete with all necessary bases and accessories.

Tracer wire shall be12-gauge, copper single-conductor wire with type Underground Feeder insulation.

Casing Pipe shall meet the requirements of Special Provision 907-603-8. Casing Insulators shall be commercial available casing insulators with a minimum of four plastic runners, each runner a minimum of ¼-inch high, shall be installed at five feet maximum intervals on the steel gas main prior to insertion. Insulators shall be sized to center the gas main in the casing.

When inserting the pipe into the casing, Contractor shall use a suitable cable protector on the casing end to protect the pipe coating from damage. Cable protectors shall be left in place after pipe insertion is completed.

Casing End Seals shall be Link Seal™ or approved equal capable of forming a watertight seal at the ends of the casing.

Submittals. The Contractor shall show proof of the time limit set for polyethylene pipe and fittings set. The Contractor shall provide a manufacture's certificate of compliance that the materials to be supplied meet the requirements of the specifications. A certificate prior to starting work stating that the individual(s) performing the butt-fusion procedures and the superintendent are qualified. The Contractor shall include results of all Field Quality Control tests

Quality Assurance. The Contractor installing the natural gas distribution system must show compliance with CFR 49, parts 192 (written procedures for doing gas distribution installation) and 199 (drug testing program) prior to starting any field work.

Polyethylene pipe and fitting shall be no older than 12 months from the date of manufacturer providing they have been shown to have been stored indoors. Otherwise, they shall be no older than six (6) month from date of manufacture.

Delivery, Storage And Handling. All pipe shall be packaged in standard commercial coils or bundles that provide protection from shipping injuries.

907-264.03--Construction Requirements.

907-264.03.1--Installation. Gas main locations, depth, cover, etc. will be shown on the plans. Unless specifically shown in the Plans, gas mains shall be a minimum 24 inches from any parallel utility line, and have a minimum 1-foot vertical clear space from any crossing utility lines or other underground facilities.

Unless specifically shown in the Plans, service connections shall come perpendicular from the gas main in the shortest straight line to the gas meter.

No meter or regulator shall be installed inside of a building, garage, carport, crawlspace, or in any other enclosed area with walls on more than two sides or under a roof structure.

Contractor is responsible for coordinating access to private property with the gas using customer**.** Contractor shall notify the customer at least 14 days in advance of performing work.

Polyethylene pipe shall not be dragged on ground or on paved surfaces.

Support stands and roller shall be used when fusing and lowering pipe into the trench or through a bore hole. Support stands must be used at all time that pipe is placed on paved surfaces.

Pipe that has scratches, notches, cuts or any other abrasions that exceed 10 percent of the pipe wall thickness can not be installed.

All butt fusions must be performed by person(s) qualified by the pipe manufacturer or in accordance with Appendix A of PPI TR-33. Contractor's supervisor shall be present during all pipe fusions to insure that all required procedures are adhered to and to witness the quality of each joint. Ambient temperature shall be between 55ºF 85ºF prior to pipe fusion; otherwise pipe shall be protected from direct sunlight and cooled down until the ambient temperature falls within the above temperature range. Fusion joints shall be allowed to cool to ambient temperature prior to movement of the pipe/joint.

With no fused joints present, the minimum bend radius shall be 25 times the outer pipe diameter. With fused joints present the minimum bend radius shall be 50 times the outer pipe diameter.

Polyethylene pipe shall be installed in the trench by "snaking" method and additional pipe length shall be allowed for the possible thermal contraction of the pipe.

Contractor shall seal open piping with butt fusion end caps at the end of each workday.

Main line leak test shall be in accordance with Subsection 907-264.03.1.

Tracer wire shall be installed along the length of the pipe prior to backfill. Tape wire to the top of the pipe with duct tape at a maximum of 8-foot intervals and not allowed to "float freely" within the backfill. Terminate wire at all valves, meters, cleanouts, etc. or every 1,000 linear feet. Contractor must notify Engineer when the installation of tracers is to be done so that the Engineer may inspect. If this is not done, the Contractor will demonstrate the operation of the tracer by locating all of the piping installed.

Valves shall be installed at the marked locations. Valves shall be installed with the operating nut facing vertically up on top. The Owner will not accept valves that are cocked or oriented in any direction except up.

Valve box shall be installed at each new, main line, and valve location.

Anode boxes shall be installed at locations shown on the Plans.

Casing pipe shall be installed where shown on the Plans, or where directed by the Engineer. All pipe ends shall be sealed with a butt fusion end cap or similar fitting prior to pulling into a borehole.

Service assembly shall be installed as shown on the Plans or where directed by the Engineer.

Tapping tees shall only be installed on the top of the gas main. Mechanical tapping tee shall be installed per manufacturer's instructions. Fusion tapping tee shall be installed in accordance with PPI TR-33.

If an excess flow valve is installed care shall be taken to insure that the excess flow valve is installed with the arrow pointing away from the tapping tee.

Service assembly leak test shall be in accordance with Subsection 907-264.03.2.

Conflict boxes shall be installed where shown on the Plans or where directed by the Engineer

907-264.03.2--Field Quality Control. Contractor shall conduct an air pressure test on all newly installed gas distribution pipe (main and service connections). The Engineer will monitor test. The Contractor shall advise the Engineer at least 48 hours prior to testing.

Contractor shall furnish all necessary equipment and material and make all taps in the pipe, as required.

Test pressure shall be 100 psig or 1.5 times pipe system nominal design operating pressure, which ever is greater. Contractor will provide a pressure chart recorder to document all air tests. Test time shall be a 24 hours unless specified otherwise. The pressure shall not decrease during the test period.

Contractor or duly authorized representative shall maintain a written record showing the results of testing for each section of line.

The minimum following information will be included:

1. Name of Owner, Engineer, and Contractor performing the work
2. Identification of the section being tested.
3. Date of the test.
4. Length of the section being tested and the nominal diameter of the pipe.
5. Test pressure psig.
6. Duration of the test in hours.
7. Total number of leaks on the section being tested.
8. Date leaks were repaired.
9. Brand name of pipe used.
10. Pressure rating (SDR and PSI).
11. A similar set of data for any section of line, which is retested.

Engineer will furnish a testing form for use by the Contractor.

Contractor shall repair all leaks and retest at no cost to the Owner.

The Engineer will have a full time Inspector at the job site. The Inspector has the right to reject any fusions not meeting Engineer's requirements. Contractor shall replace all fusions not meeting Engineer requirements at no additional cost to the MDOT/Owner.

Contractor shall also designate a polyethylene qualified supervisor who will be present on site at all times to observe pipe fuser(s).

Any failure recorded by the fusion equipment must be immediately brought to the attention of Engineer to avoid the Engineer requiring the Contractor to remove fusions to the last recorded acceptable fusion.

907-264.04--Method of Measurement. Polyethylene gas pipe of the size specified will be measured for payment by the linear foot. Isolation polyethylene ball valves of the size specified, natural gas service assembly, casing pipe of the size specificed, and initial testing will be measured for payment per each. Only the initial test will be measured for payment in each specific section (isolation section). Any re-testing will not be measured for payment.

907-264.05--Basis of Payment. Polyethylene gas pipe, measured as prescribed above, will be paid for at the contract bid price per the linear foot, which price shall include the cost of all labor, materials, tools, and incidentals necessary to complete the work.

Isolation polyethylene ball valves of the size specified, natural gas service assembly, casing pipe of the size specificed, and initial testing, all measured as prescribed above, will be paid for at the contract bid price per each, which price shall include the costs for all labor, materials, necessary repairs required by the failed testing and any additional testing required of an isolated section, and all incidentals necessary to complete the work.

Payment will be made under:

907-264-A:	__" Polyethylene Gas Pipe	- per linear foot
907-264-B:	__" Isolation Polyethylene Ball Vave	- per each
907-264-C:	Natural Gas Service Assembly	- per each
907-264-D:	__' Casing Pipe	- per each
907-264-E:	Initial Testing	- per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-265-1 **CODE: (SP)**

DATE: 07/12/2007

SUBJECT: Potable Water System

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 907-265, Potable Water System, is hereby added to and made a part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-265-- POTABLE WATER SYSTEM

907-265.01--Description. This work consists of installing and testing pipe necessary for use in a potable water system.

907-265.02--Materials.

907-265.02.1--PVC Pipe. PVC pipe components shall meet the following requirements:

Pipe: PVC, AWWA C900, Class 150, DR18.

Fittings: Ductile iron mechanical joint with retainer glands.

Isolation Valves: Gate valves per Notice To Bidders No. 1671.

Nipples: Same as pipe, except threaded nipples shall be Schedule 80.

Gaskets: Full-faced, 1/8-inch thick, fabricated from ethylene propylene rubber (EPR). When mating flange has raised face, use flat ring gasket and provide filler gasket between outside diameter of raised face and flange outside diameter to protect PVC flange from bolting moment.

Joint Restraint: per Notice To Bidders No. 1671.

Bolting: Same a for ductile iron.

Thread Lubricant: Shall be Teflon tape.

Potable Water Service Assembly: per Notice To Bidders No. 1671.

Casing Pipe: per Subsection 907-265.02.4.

Conflict Box: per plans and Notice To Bidders No. 1671.

Buried Pipe Line Identification: per Notice To Bidders No. 1679.

907-265.02.2--Ductile-Iron Pipe. Ductile iron pipe components components shall meet the following requirements:

Pipe: ANSI / AWWA C153 / 21.51, unless otherwise stated on the drawings. The Pressure Class shall be 350. Pipe used for potable water shall have an interior coating per ANSI / AWWA C104 / A21.4.

Joints: Grooved end joints shall be rigid type, radius cut grooved, conforming to ANSI / AWWA C606.

Fittings: Gray or ductile iron, 150 psig minimum working pressure, lined and seal-coated. Where taps are shown on fittings, tapping bosses shall be provided. Field-brazed or field-welded fittings (seep rings, bosses, etc.) are not acceptable.

Grooved End: AWWA C606 radius cut grooved, rigid joint, as manufactured Victaulic Company of America, Gustin Bacon, or approved equal

Flanged: ANSI / AWWA C110 / A21.10 (matches ANSI B16.1, Class 125 flange)

Mechanical Joint: ANSI / AWWA C110 / A21.10

Push-on: ANSI / AWWA C110 / A21.10, American Pipe, or U.S. Pipe and Foundry, or approved equal

Restraint Joint: Manufacturer Standard, American Pipe, U.S. Pipe and Foundry, or approved equal.

Compact fittings: per ANSI / AWWA C153 / A21.53 may be used in lieu of full body fittings.

Threaded Flange: ANSI / AWWA C115 / A21.15, 250 psi, 250 psi working pressure ANSI Class 125.

Grooved End pipe adapter flange: Per ASTM A47 for iron or ASTM A536 for ductile-iron. Suitable type is Victaulic Style 31, Gustin-Bacon, or approved equal.

Couplings: Per ASTM A47 for iron or ASTM A536 for ductile-iron. Suitable type is Victaulic Style 31, Gustin-Bacon, or approved equal.

Isolation Valves: Gate valves per Notice To Bidders No. 1671.

Gaskets: Gaskets for grooved end joints shall be manufacturer's flush-seal type specifically designed for cast surfaces. Properties shall be as designated in ASTM D 2000 for the required service. Dimensions shall conform to AWWA C606.

Gaskets for mechanical or push-on joints shall be rubber, conforming to ANSI / AWWA C111 / A21.11.

Gaskets for flanged joints shall be 1/8-inch thick, cloth-inserted rubber conforming to applicable parts of ANSI / AWWA C207. Gasket material shall be free from corrosive alkali or acid ingredients and suitable for use in sewage or potable waterlines. Gaskets shall be full-face type for 125-pound face to face flanges.

Bolts: Bolts for Class 125 FF Flanges (above grade) shall be Carbon Steel, ASTM A307, Grade A hex head bolts and ASTM A563, Grade A hex head nuts. Bolts for Grooved End or Mechanical Joint shall be Manufacturer's standard.

Buried Flanges: 316 stainless steel, ASTM A193

Lubricant: Lubricant for grooved end or mechanical joint end piping shall be manufacturer's standard.

Coatings: All pipe shall be externally coated with an approved coal tar based paint in accordance with ANSI / AWWA C104 / A21.4

Lining: All non potable piping shall be coal tar epoxy lined in accordance with AWWA C210. Potable piping shall be lined per ANSI / AWWA C104 / A21.4.

Buried Pipe Line Investigation: per Notice To Bidders No. 1679.

907-265.02.3--Fire Hydrant. Fire Hydrant components shall meet the following requirements:

Low Pressure Hydrant: Nominal 5¼-inch main valve opening with 6-inch bottom connection. The hydrant shall be equipped with two – 2½ inch diameter hose nozzles and one 4½ inch diameter pumper nozzle. Operating nut shall be 1½ inch, American National Standard Pentagon nut. The main valve shall be equipped with O-ring seals and shall open when turned to the left (counterclockwise). Hydrant shall be of the break-flange or safety-top type. Hydrant shall conform to AWWA C502, and this specification. The depth of bury shall be 3.5 feet or as shown on the Project Drawings. Nozzle threads shall be American National Standard. The inlet connection shall be mechanical joint. Hydrants shall be red above the ground line. Low pressure hydrant shall be Mueller A-423 or approved equal.

Gravel for Drainage: Gravel for drainage shall be washed 3/4-inch drainage gravel and shall be free of organic matter, sand, loam, clay, and other small particles that will tend to restrict water flow through the gravel.

Joint Restraints: All fire hydrant joint connection pipe (from tee to fire hydrant base) shall be restrained with Megalug as manufactured by EBBA Iron Incorporated or approved equal.

907-265.02.4--Casing. Unless specifically shown on Plans, casing pipe shall be straight, unpainted, 40S, carbon steel pipe per ASTM A139, Grade B

Pipe Diameter: As stated in the Contract Drawings. If casing pipe is to be used in a Jack and Bore operation the pipe must be square and have dead-even lengths which are comparable with the Jack and Bore equipment.

Wood Skids: Wood skids shall be Southern pine S4S medium grade or better, minimum 24 inches long, conforming to AASHTO M168. Skids shall be treated in accordance with AWPA C2. Ends of strapping shall be notched to allow placement of strapping.

Strapping: Strapping shall be ½-inch wide by 0.02-inch thick, 304 stainless steel.

Other Spacers: Any design that is essentially corrosion proof and provides insulating protection from possible electrical shorting between casing pipe and carrier pipe.

Runner length: minimum two inches

Spacing Between Spacers: According to pipe manufactures recommendations. As a minimum place spacer within one foot of each side of joint and but not to exceed eight (8) feet on centers.

End Seals: Manufactured from styrene-butadiene rubber, 3/8 inch thick, to resist damage from backfill and compaction, with ½-inch stainless steel banding and non-magnetic work gear mechanism. Specification based on Advanced Products System Inc. but equal will be accepted.

907-265.03--Construction Requirements.

907-265.03.1--PVC Pipe. All PVC pipe shall be cut, made up, and installed in accordance with the pipe manufacturer's recommendations.

Use Schedule 80 threaded nipple where necessary to connect to threaded valve or fitting.

Only strap wrenches shall be used for tightening threaded plastic joints, and care shall be taken not to over tighten these fittings. Pipe shall not be laid when the temperature is below 40ºF, nor above 90ºF when exposed to direct sunlight. Ends to be joined shall be shielded from direct sunlight prior to and during the laying operation.

Provide adequate ventilation when working with pipe joint solvent cement.

Potable water service assembly shall be installed where shown on the Plans or where directed by the Engineer. The assembly shall be constructed as shown in the Plans.

Fire hydrant assembly shall be installed where shown on the Plans or where directed by the Engineer. Hydrant assembly shall be constructed as shown on the Plans.

Casing pipe shall be installed where shown on the Plans or where directed by the Engineer.

Conflict box shall be installed where shown on the Plans or where directed by the Engineer.

Buried Line Identification shall be installed as per Notice To Bidders No. 1679.

Field Quality Control
It is not expected that the entire new water distribution system will be tested at one time. When a specific section is available it will be isolated and tested.

All lines shall be hydrostatically tested at the pressure and with the test procedures specified in other spection of the contract document.

All new potable water lines shall be disinfected as specified in other spection of the contract document.

907-265.03.2--Ductile-Iron Pipe. Care shall be taken not to damage the lining when handling the pipe. Cut pipe with milling type cutter, rolling pipe cutter, or abrasive saw cutter. Do not flame cut or squeeze cut.

Dress cut ends of pipe in accordance with the type of joint to be made. Dress cut ends of mechanical joint pipe to remove sharp edges or projections which may damage the rubber gasket. Dress cut ends of pipe for flexible couplings, flanged coupling adapters, and grooved end pipe couplings as recommended by the coupling or adapter manufacturer.

Flanged pipe shall be fabricated in the shop, not in the field, and delivered to the jobsite with flanges in place and properly faced. Threaded flanges shall be individually fitted and machine tightened on matching threaded pipe by the manufacturer. Flanges shall be faced after fabrication in accordance with ANSI / AWWA C115 / A21.15. Flange-to-pipe threaded joints shall be hydrostatically shop tested to ensure joint integrity.

Groove end pipe shall be installation in accordance with the manufacturer's printed instructions.

Prior to connecting flange pipe, the faces of the flanges shall be thoroughly cleaned of all oil, grease, and foreign material. The rubber gaskets shall be checked for proper fit and thoroughly cleaned. Care shall be taken to assure proper seating of the flange gasket. Bolts shall be tightened so that the pressure on the gasket is uniform. Torque-limiting wrenches shall be used to ensure uniform bearing insofar as possible. If joints leak when the hydrostatic test is applied, the gaskets shall be removed and reset and bolts retightened.

Join pipe with mechanical, push-on or restraint type joints in accordance with the manufacturer's recommendations. Provide all special tools and devices, such as special jacks, chokers, and

similar items required for proper installation. Lubricant for the pipe gaskets shall be furnished by the pipe manufacturer, and no substitutes will be permitted under any circumstances.

Pipe shall be corrosion protected per the specifications.

Supports and hangers shall be installled per the plans and specifications.

Pipe restraint shall be used per the plans and specifications.

Buried line identification shall be used with each line of pipe per the specifications.

Field Quality Control

It is not expected that the entire new water distribution system will be tested at one time. When a specific section is available it will be isolated and tested.

All lines shall be hydrostatically tested at the pressure and with the test procedures specified in other spection of the contract document.

All new potable water lines shall be disinfected as specified in other spection of the contract document.

907-265.03.3--Fire Hydrant. Installation shall conform to provisions of Sections 3.7 and 3.8 of AWWA C600, except where otherwise specified.

Location and position shall be as shown on the plans to provide complete accessibility and minimize possibility of damage from vehicles or injury to pedestrians. Improperly located hydrants shall be disconnected and relocated at the Contractor's sole expense.

When placed behind the curb, set hydrant barrel so that no portion of the pumper or hose nozzle cap will be less than 36 inches from the gutter face of the curb. When set in lawn space between curb and sidewalk, or between sidewalk and property line, let no portion of the hydrant or nozzle cap be within eight (8) inches of the sidewalk.

Set hydrants so that safety flange is a minimum of two (2) inches above finished ground or sidewalk level to clear bolts and nuts.

Set hydrant so that pumper outlet is at 45 degree angle to the street.

Do not install below subbase grade. Over excavated areas shall be refilled with gravel and hand tamp to provide firm foundation.

Installation of Hydrant

Hydrant shall be placed carefully on base block to prevent the base block from breaking. When ductile-iron pipe is used, jointing procedures shall conform to Section 3.l4 of AWWA C600. After

hydrant is in place and connected to the pipeline, place temporary blocks to maintain the hydrant in a plumb position during subsequent work.

Gravel shall be placed around base block and hydrant bottom as specified in Section 3.7 of AWWA C600.

Thrust restraints shall be used in lieu of concrete thrust blocking when the top of the existing ground behind the fire hydrant is less than two (2) feet above the top of the hydrant base. Where such conditions exist, provide either two - ¾ inch tie rods between gate valve and hydrant, and between water main tee and gate valve, or use mechanical joint restraints on in all joints between the fire hydrant and water main tee inclusive.

907-265.03.4--Casing. Casing pipe is to be jacked and bored. If sections of pipe must be welded together to achieve the desired length, they must be welded together through fully welded joints. Ensure joints are air tight and continuous over the entire circumference of the pipe. Weld bead should be equal to or exceed the minimum required to meet the thickness criteria of the pipe. A qualified welder must perform all welding. Certification must be provided to Engineer 10 days prior to start of work

Casing pipe bedding and backfill to be the same as specified for carrier pipe being cased.

When pulling HDPE and PE pipe through casing, use either a pulling head or a suitable wraparound sleeve with rubber protective coating to prevent the pulling cables from damaging the pipe. Never pull HDPE or PE pipe by the flange end. Use of lubricants (flax soap or drilling mud) between casing spacers and casing can ease installation.

When installation of PVC pipe in casing pipe, bell joint restraint is required at any bell connection within the encasement. PVC pipe may be installed in the casing using a winch drawn cable or jacking. In both methods, care must be exercised to avoid damage to pipe or bell joints. Use of lubricants (flax soap or drilling mud) between skids or casing spacers and casing can ease installation. Do not use petroleum products as prolong exposure to this type of material could damage the carrier pipe gaskets.

907-265.04--Method of Measurement. Pipe of the size and type specified will be measured for Pipe, of the size and type specified, will be measured by the linear foot.

Ductile iron fittings will be measured by the pound.

Isolation Valve, Water Service Assembly, Fire Hydrant Assembly & Pipe Casing will be measured per each.

Initial Testing, of the type specified, will be measured per each. Only the initial test will be measured for payment in each specific section (isolation section). Any re-testing will not be measured for payment.

907-262.05--Basis of Payment. Pipe, measured as prescribed above, will be paid for at the contract bid price per the linear foot, which price shall include the cost of all labor, materials, tools, and incidentals necessary to complete the work.

Ductile iron fittings, measured as prescribed above, will be paid for at the contract unit price per pound, which price shall be full compensation for furnishing all labor, materials, tools, and incidentals necessary to complete the work.

Isolation Valve, Water Service Assembly, Fire Hydrant Assembly & Pipe Casing, measured as prescribed above, will be paid for at the contract bid price per each, which price shall include the costs for all labor, materials, and all incidentals necessary to complete the work.

Initial Testing, measured as prescribed above, will be paid for at the contract bid price per each, which price shall include the costs for all labor, materials, necessary repairs required by the failed testing and any additional testing required of an isolated section, and all incidentals necessary to complete the work.

Payment will be made under:

907-265-A:	__" Description Pipe	- per lineal foot
907-265-B:	__" Description Pipe, With Joint Restraint	- per lineal foot
907-265-C:	Ductile Iron MJ Fittings	- per pound
907-265-D:	__" Isolation Gate Valve	- per each
907-265-E:	Potable Water Service Assembly	- per each
907-265-F:	Fire Hydrant Assembly	- per each
907-265-G:	_____' Casing Pipe	- per each
907-265-H:	Initial Testing	- per each
907-265-I:	Initial Disinfection Testing	- per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-304-9 **CODE: (SP)**

DATE: 06/28//2007

SUBJECT: Crushed Aggregate Courses

Section 907-304, Granular Courses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-304.02--Materials. After the first paragraph of Subsection 304.02.1 on page 183, add the following:

When the contract includes pay item 907-304-E, Granular Material, LVM, RAP, it shall be milled recycled asphalt pavement and shall be visually inspected by the Engineer to insure it is free from chunks and deleterious materials.

907-304.03--Construction Requirements.

907-304.03.5--Shaping, Compacting and Finishing. Delete the first table in Subsection 304.03.5 on page 186 and substitute the following:

Granular Material Class	Lot Average	Individual Test
7,8,9 or 10	97.0	93.0
5 or 6	99.0	95.0
3 or 4	100.0	96.0
1 or 2	102.0	98.0
Crushed Courses*	99.0	95.0

* When placed on filter fabric on untreated subgrade, the individual tests and the average of the five (5) tests shall equal or exceed the following values:

Lot Average	Individual Test
96.0	92.0

Before the last paragraph of Subsection 304.03.5 on page 186, add the following:

Unless otherwise specified, density for granular material, RAP, shall be achieved by two passes of an approved roller and density tests will not be required.

907-304.05--Basis of Payment. Add the "907" prefix to pay items 304-D, 304-E, 304-F, 304-G & 304-H on page 187.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-304-10 **CODE: (SP)**

DATE: 07/10/2007

SUBJECT: Granular Material - Sand

Section 907-304, Granular Courses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-304.02--Materials. After the first paragraph of Subsection 304.02.1 on page 183, add the following:

Granular Material, Concrete Sand, shall meet the requirements of Subsection 703.02 for natural or manufactured sand.

907-304.05--Basis of Payment. Add the "907" prefix to pay items 304-D & 304-E on page 187.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-401-2

DATE: 05/09/2008

SUBJECT: Hot Mix Asphalt (HMA)

After Subsection 907-401-02.6.2 on page 2, add the following:

907-401.02.6.4.1--Roadway Density. Delete subparagraphs 1., 2., & 3. on page 251 and substitute the following:

1. For all leveling lifts, when full lane width and with a thickness as specified in the table in Subsection 401.02.4, the required lot density shall be 92.0 percent of maximum density.

2. For all single lift overlays, with or without leveling and/or milling, the required lot density shall be 92.0 percent of maximum density.

3. For all multiple lift overlays of two (2) or more lifts excluding leveling lifts, the required lot density of the bottom lift shall be 92. 0 percent of maximum density. The required lot density for all subsequent lifts shall be 93.0 percent of maximum density.

4. For all pavements on new construction, the required lot density for all lifts shall be 93.0 percent of maximum density.

907-401.03.1.2--Tack Coat. Delete the three sentences of Subsection 401.03.1.2 on page 259, and substitute the following:

Tack coat shall be applied to previously placed HMA and between lifts, unless otherwise directed by the Engineer. Tack coat shall be applied with a distributor spray bar. A hand wand will only be allowed for applying tack coat on ramp pads, irregular shoulder areas, median crossovers, turnouts, or other irregular areas. Bituminous materials and application rates for tack coat shall be as specified in Table 410-A on page 293. Construction requirements shall be in accordance with Subsection 407.03 of the Standard Specifications.

907-401.03.1.4--Density. Delete the first sentence of the first paragraph of Subsection 401.03.1.4 on page 259 and substitute the following:

The lot density for all dense graded pavement lifts, except as provided below for preleveling, wedging [less than fifty percent (50%) of width greater than minimum lift thickness], ramp pads, irregular shoulder areas, median crossovers, turnouts, or other areas where the established rolling pattern cannot be performed, shall not be less than the specified percent (92.0% or 93.0%) of the maximum density based on AASHTO Designation: T 209 for the day's production. For all leveling lifts, when full lane width and with a thickness as specified in the table in Subsection 401.02.4, the required lot density shall be 92.0 percent of maximum density.

907-401.03.9--Material Transfer Equipment. Delete the paragraph in Subsection 401.03.9 on page 264 and substitute the following:

Excluding the areas mentioned below, the material transferred from the hauling unit when placing the top lift, or the top two (2) lifts of a multi-lift HMA pavement with density requirements, shall be remixed prior to being placed in the paver hopper or insert by using an approved Materials Transfer Device. Information on approved devices can be obtained from the State Construction Engineer. Areas excluded from this requirement include: leveling courses, temporary work of short duration, detours, bridge replacement projects having less than 1,000 feet of pavement on each side of the structure, acceleration and deceleration lanes less than 1,000 feet in length, tapered sections, transition sections for width, shoulders less than 10 feet in width, crossovers, ramps, side street returns and other areas designated by the Engineer.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-401-2 **CODE: (IS)**

DATE: 11/04/2005

SUBJECT: Hot Mix Asphalt (HMA)

Section 401, Hot Mix Asphalt (HMA) - General, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete in toto Subsection 401.02.6.2 on pages 248 and 249, and substitute:

907-401.02.6.2--Assurance Program for Mixture Quality. The Engineer will conduct a quality assurance program. The quality assurance program will be accomplished as follows:

1) Conducting verification tests.
2) Validate Contractor test results.
3) Periodically observing Contractor quality control sampling and testing.
4) Monitoring required quality control charts and test results.
5) Sampling and testing materials at any time and at any point in the production or laydown process.

The rounding of all test results will be in accordance with Subsection 700.04.

The Engineer will conduct verification tests on samples taken by the Contractor under the direct supervision of the Engineer at a time specified by the Engineer. The frequency will be equal to or greater than ten percent (10%) of the tests required for Contractor quality control and the data will be provided to the Contractor within two asphalt mixture production days after the sample has been obtained by the Engineer. At least one sample shall be tested from the first two days of production. All testing and data analysis shall be performed by a Certified Asphalt Technician-I (CAT-I) or by an assistant under the direct supervision of the CAT-I. Certification shall be in accordance with the *MDOT HMA Technician Certification Program* chapter in the Materials Division Inspection, Testing, and Certification Manual. The Department shall post a chart giving the names and telephone numbers for the personnel responsible for the assurance program.

The Engineer shall be allowed to inspect Contractor testing equipment and equipment calibration records to confirm both calibration and condition. The Contractor shall calibrate and correlate all testing equipment in accordance with the latest versions of the Department's Test Methods and AASHTO Designation: R 18.

Random differences between the Engineer's verification tests and the current running average of four quality control tests at the time of obtaining the verification sample will be considered acceptable if within the following limits:

Item	Allowable Differences
Sieve - % Passing	
3/8-inch and above	6.0
No. 4	5.0
No. 8	4.0
No. 16, for 4.75 mm mixtures ONLY	3.5
No. 30	3.5
No. 200	2.0
AC Content	0.4
Specimen Bulk SG, Gmb @ N_{Design}	0.030
Maximum SG, Gmm	0.020

If four quality control tests have not been tested prior to the time of the first verification test, the verification test results will be compared to the average of the preceding quality control tests. If the verification test is the first material tested on the project or if a significant process adjustment was made just prior to the verification test, the verification test results will be compared to the average of four subsequent quality control test results. For all other cases after a significant process adjustment, the verification test results will be compared to the average of the preceding quality control tests (taken after the adjustment) as in the case of a new project start-up when four quality control tests are not available.

In the event that; 1) the comparison of the Contractor's running average quality control data and Engineer's quality assurance verification test results are outside the allowable differences in the above table, or 2) if a bias exists between the results, such that one of the results is predominately higher or lower than the other, and the Engineer's results fail to meet the JMF control limits, the Engineer will investigate the reason immediately. As soon as the need for an investigation becomes known, the Engineer will increase the quality assurance sampling rate to the same frequency required for Contractor testing. The additional samples obtained by the Engineer may be used as part of the investigation process or for routine quality assurance verification tests. The Engineer's investigation may include testing of the remaining quality control split samples, review and observation of the Contractor's testing procedures and equipment, and a comparison of split sample test results by the Contractor quality control laboratory, Department quality assurance laboratory and the Materials Division laboratory. The procedures outlined in the latest edition of MDOT's Field Manual for HMA may be used as a guide for the investigation. In the event that the Contractor's results are determined to be incorrect, the Engineer's results will be used for the quality control data and the appropriate payment for the mixture will be based on the procedures specified in Subsection 401.02.5.8(j).

The Engineer will periodically witness the sampling and testing being performed by the Contractor. The Engineer, both verbally and in writing, will promptly notify the Contractor of any observed deficiencies. When differences exist between the Contractor and the Engineer which cannot be resolved, a decision will be made by the State Materials Engineer, acting as the referee. The Contractor will be promptly notified in writing of the decision. If the deficiencies are not corrected, the Engineer will stop production until corrective action is taken.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-403-4

DATE: 03/30/2007

SUBJECT: Hot Mix Asphalt (HMA)

Before Subsection 907-403-05.2 on page 1, add the following:

Delete Subsection 403.03.5.5 on page 273 and substitute the following:

907-403.03.5.5--Preliminary Leveling. All irregularities of the existing pavement, such as ruts, cross-slope deficiencies, etc., shall be corrected by spot leveling, skin patching, feather edging or a wedge lift in advance of placing the first overall lift.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-403-4 **CODE: (IS)**

DATE: 11/04/2005

SUBJECT: Hot Mix Asphalt (HMA)

Section 403, Hot Bituminous Pavement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-403.05.2--Pay Items. Add the "907" prefix to the pay items listed on page 275 & 276.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-407-1 **CODE: (SP)**

DATE: 02/26/2008

SUBJECT: Tack Coat

Section 407, Tack Coat, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-407.02.1--Bituminous Material. Delete the second sentence of the first paragraph of Subsection 407.02.1 on page 281, and substitute the following:

When not specified, the materials shall be as specified in Table 410-A on page 293.

907-407.03.3--Application of Bituminous Material. Delete the first paragraph of Subsection 407.03.3 on page 281, and substitute the following

Tack coat shall be applied with a distributor spray bar. A hand wand will only be allowed for applying tack coat on ramp pads, irregular shoulder areas, median crossovers, turnouts, or other irregular areas. Bituminous materials and application rates for tack coat shall be as specified in Table 410-A on page 293. Tack coat shall not be applied during wet or cold weather, after sunset, or to a wet surface. Emulsions shall be allowed to "break" prior to superimposed construction.

907-407.05--Basis of Payment. Delete the pay item at the end of Subsection 407.05 on page 282, and substitute the following:

907-407-A: Asphalt for Tack Coat * - per gallon

* Grade may be specified

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-601-1 **CODE: (IS)**

DATE: 08/29/2007

SUBJECT: Structural Concrete

Division 600, Incidental Construction, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After the heading **DIVISION 600 - INCIDENTAL CONSTRUCTION**, add the following:

Unless otherwise specified, all testing of Portland cement concrete in Division 600 shall be in accordance with the requirements of Subsection 907-601.02.1.

907-601.02--Materials.

907-601.02.1--General. Delete the second and third sentence of the first paragraph of Subsection 601.02.1 on page 348, and substitute the following:

Sampling and testing will be in accordance with TMD-20-04-00-000 or TMD-20-05-00-000, as applicable.

907-601.03.6.3--Removal of Falsework, Forms, and Housing. Delete the first paragraph, the table and second paragraph of Subsection 601.03.6.3 on pages 349 and 350, and substitute the following:

The removal of falsework, forms, and the discontinuance of heating, shall be in accordance with the provisions and requirements of Subsection 907-804.03.15, except that the concrete shall conform to the following compressive strength requirements:

Wingwall and Wall Forms not Under Stress	1000 psi
Wall Forms under Stress	2200 psi
Backfill and Cover clear	2400 psi

In lieu of using concrete strength cylinders to determine when falsework, forms, and housings can be removed, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Subsection 907-804.03.15. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of Subsection 907-804.03.15. Technicians using the maturity meter or calculating strength/maturity graphs shall meet the requirements of Subsection 907-804.03.15.

907-601.05--Basis of Payment. Add the "907" prefix to the pay items listed on page 352.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-603-5 **CODE: (SP)**

DATE: 10/07/2005

SUBJECT: Video Pipe Inspection

Section 603, Culverts and Storm Drains, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby modified as follows:

907-603.01--Description. After the last paragraph of Subsection 603.01 on page 355, add the following:

This work also includes the video inspection of drainage systems.

907-603.03.10--Video Pipe Inspection. All drainage pipe that is required to be cleaned of sand and debris will also be video inspected to assure that the pipe system is clean of obstructions. The drainage system shall be video inspected by the Contractor in the presence of the Engineer or the Engineer's representative. A video recording for each line inspected shall be furnished to the Engineer. The line location (station number) and distance traversed by the camera shall be recorded on a standard VHS video tape.

Video equipment used for inspecting the drainage system shall be capable of the following minimum requirements:

(1) Providing color video inspection of the pipeline. The color camera must have a minimum 400-line horizontal resolution.

(2) Video inspecting up to 300 linear feet of drainage pipe, by pushing, pull cabling, jetting or tractoring the camera through the line and recording the condition on video tape.

(3) Equipped with a video monitor capable of allowing live viewing of the video inspection.

(4) Displaying and recording on the video tape, the date, line identification, footage and type of pipe deficiency.

(5) Recording the distance traversed by the camera to within 0.5 feet, allowing for overlapping of distances if a reversal is required to permit full-length inspection.

Any foreign materials that restricts the movement of the inspection equipment or impairs the quality of the video within the drainage system shall be flushed from the system. Flushing of the drainage system will be by water jetting or other methods approved by the Engineer. Costs associated with flushing the system will not be made under separate payment. The system shall

be re-inspected after flushing in the same manner as the initial inspection as described above. Re-inspection of the system shall be at no additional cost to the State.

907-603.04--Method of Measurement. After the last paragraph of Subsection 603.04 on page 363, add the following:

Video pipe inspection will be measured by the linear foot of drainage pipe inspected. The length to be paid will be the slope length of the pipe.

907-603.05--Basis of Payment. After the fourth paragraph of Subsection 603.05 on page 363, add the following:

Video pipe inspection, measured as prescribed above, will be paid for at the contract unit price per linear foot of drainage pipe inspected, which price shall be full compensation for furnishing all labor, equipment, VHS tapes, tools and incidentals necessary to complete the work.

After the last pay item listed on page 366, add the following:

VIDEO PIPE INSPECTION

907-603-V: Video Pipe Inspection, All Sizes - per linear foot

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-603-7 **CODE: (SP)**

DATE: 07/13/2007

SUBJECT: Directional Drilling - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 603, Culverts and Storm Drains, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as modified by this special provision is applicable to Directional Drilling of Utilities Only.

907-603.01--Description. This work consist of install directionally drilled pipe to the lines and grades at the location(s) shown on the Plans.

The Contractor shall submit a set of Contractor's Construction Drawings which indicated the method in which the Contractor proposes to construct, operate, build, etc., the referenced item. The submission of these drawings shall be required for the sole purpose of providing sufficient details to verify that the Contractor's work is in accordance with the intent of the design.

The Contractor shall be responsible for means and methods of directional drilling construction and shall ensure the safety of the work, the Contractor's employees, the public, and adjacent property, whether public or private.

When directional drilling is performed on State highways, the Contractor shall be responsible for complying with all requirements of the Mississippi Department of Transportation.

When directional drilling is performed on railroad right-of-way, the Contractor shall be responsible for complying with all requirements of the railroad company.

Permits and easements are available for review at the Engineer's office.

907-603.01.1--General Directional Drilling Requirements. Boring must use techniques of creating or directing a borehole along a predetermined path to a specified target location. This must involve use of mechanical and hydraulic deviation equipment to change the boring course and must use instrumentation to monitor the location and orientation of the boring head assembly along a predetermined course.

Drilling must be accomplished with fluid-assist mechanical cutting. Boring fluids shall be a mixture of bentonite and water or polymers and additives. Bentonite sealants and water will be used to lubricate and seal the mini-tunnel. It is mandatory that minimum pressures and flow rates be used during drilling operation as not to fracture the sub-grade material around and or above the bore.

The mobile drilling system shall utilize small diameter fluid jets to fracture and mechanical cutters to cut and excavate the soil as the head advances forward.

Steering shall be accomplished by the installation of an offset section of drill stem that causes the cutter head to turn eccentrically about its centerline when it is rotating. When steering adjustments are required, the cutter head offset section is rotated toward the desired direction of travel and the drill stem is advanced forward without rotation.

The mobile drilling system must be capable of being launched from the surface at an inclined angle and drilling a 2-inch to 3-inch diameter pilot hole. The pilot hole will then be enlarged with reamers as required.

907-603.01.2--Construction Site Requirements. Ensure that methods used for marking utilities minimizes impact on other construction or maintenance activities, including mowing operations, which may be conducted throughout the project on a cyclic basis. Limit marking to painting unless approved by the Engineer. When and where flagging of existing utilities is required, limit flagging to an area for which construction can be accomplished in no more than 14 consecutive days, unless approved by the Engineer.

When and where installations temporarily eliminate the use of sidewalk areas for periods exceeding two consecutive work days, provide an alternate route that meets the American With Disabilities Act requirements.

Carry out excavation for entry, exit, recovery pits, auger slurry sump pits, or any other excavation. Unless approved by the Engineer, sump pits are required to contain auger fluids if vacuum devices are not operated throughout the boring operation.

Within 48 hours of completing installation of the boring ensure that the work site is cleaned of all excess auger fluids or spoils. Removal and final disposition of excess fluids or spoils is the responsibility of the Contractor and ensure that the work site is restored to pre-construction conditions or as identified on the plans.

Restore excavated areas in accordance with the specifications and Plans.

Ensure that equipment does not impede visibility of the roadway user without taking the necessary precautions of proper signing and maintenance of traffic operations.

Investigate all sites for possibility of having to manage groundwater problems that may occur due to seasonal changes or natural conditions.

When ground water level must be controlled, use a system and equipment that is compatible with the properties, characteristics, and behavior of the soils as indicated by the soil investigation report.

Restore any damage caused by the jacking and boring operation (heaving, settlement, separation of pavement, escaping boring fluid, etc.) at no cost to the MDOT/Owner.

When required by the Engineer, provide detailed plans which show how damage to any roadway facility will be remedied. These details will become part of the As-Built Plans. When remediation plans are required, they must be approved by the Engineer before any work proceeds.

907-603.01.3--Submittals. The following shall be submitted in accordance with Section 01300, in sufficient detail to show full compliance with the specification.

Contractor shall submit Construction Drawings and/or written description of the proposed method of construction and the sequence of operation to be performed

The drawings and descriptions shall be sufficiently detailed to demonstrate to the Engineer whether the proposed materials and procedures will meet the requirements of this specification.

Contractor's Construction Drawings and/or written description shall be submitted on the following items.

Complete details of the equipment, methods and procedures to be used, including but not limited to primary lining installation, timing of installation in relation to the excavation plan and sequence, bulkheads, etc.

Method of installing detection wire.

Grouting techniques, including equipment, pumping procedures, pressure grout types, mixtures and plug systems.

Method of controlling line and grade of excavation.

Details of muck removal, including equipment type, number, and disposal location.

Proposed contingency plans for critical phases and areas of directional drilling.

Quality Control Methods: At least 10 days prior to the start of directional drilling, Contractor shall submit a description of his quality control methods he proposes to use in his operations to the Engineer. The submittal shall describe:

Procedures for controlling and checking line and grade.

Field forms for establishing and checking line and grade.

Safety: Procedures including, but not limited to, monitoring for gases encountered shall be submitted.

Engineer will base review of submitted details and data on the requirements of the completed work, safety of the work in regards to the public, potential for damage to public or private

utilities and other existing structures and facilities, and the potential for unnecessary delay in the execution of the work.

Contractor shall not commence work on any items requiring Contractor's Construction Drawings or other submittals until the drawings and submittals are reviewed and accepted by the Engineer.

Directional Drilling Documentation Requirements

Furnish a "Drilling Path Report" to the Engineer within 14 days of the completion of each bore path. Submit the As-Built-Plans to the Engineer within 30 calendar days. No payment will be made for directional drilling work until the Drilling Path Report has been delivered. Include the following information in the report:

Location of project and any assigned project number.

Name of person collecting data, including title, position and company name.

Investigation site location (Contract plans station number or reference to a permanent structure within the project right-of-way).

Identification of the detection method used.

Elevations and offset dimensions.

As-Built Plans: Provide the Engineer with a complete set of As-Built-Plans showing all bores (successful and failed) within 30 calendar days of completion of the work. Plans must be dimensionally correct copies of the Contract plans. Specific plans content include but may not be limited to the following:

On the Contract plan view, show the centerline location of each bore path, installed or installed and placed out of service, accurately to within 1 inch at the ends and other points physically observed.

Provide a profile plan for each bore path. Show the ground surface at each bore path, installed, or installed and placed out of service, accurately to within 1 inch at the ends and other points physically observed. Show the remainder of the vertical alignment of each casing installed, or installed and placed out of service and note the accuracy with which the installation was monitored. On profile plans for bore paths crossing, show the contract plans stationing. On the profile plans for bore paths paralleling the roadway show the contract plans stationing. If the profile plan for the bore path is not made on a copy of one of the Project Drawing profile or cross-section sheets, use a 10 to 1 vertical exaggeration.

If, during boring, an obstruction is encountered which prevents completion of the installation in accordance with the design location and specification, and the pipe line is left in place and taken out of service, show the failed bore path along with the final bore path on the plans. Note the

failed bore path as “Failed Bore Path - Taken Out of Service”. Also show the name of the Utility owner, location and length of the drill head and any drill stems not removed from the bore path.

Show the top elevation, diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during a subsoil investigation or the installation, show the type of material, horizontal and vertical location, top and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

907-603.01.4--Quality Assurance. Have a representative who is thoroughly knowledgeable of the equipment and boring procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations. Notify the Engineer 48 hours in advance of starting work. Do not begin the installation until the Engineer is present at the job site and agrees that proper preparations have been made.

907-603.01.5--Project / Site Conditions. Comply with all local, state and federal laws, rules and regulations at all times to prevent pollution of the air, ground and water.

Provide adequate secondary containment for any and all portable storage tanks.

Certify to the Engineer in writing that any chemical to be added to the drilling fluid is environmentally safe and not harmful or corrosive to the environment.

Conduct directional drilling operations by methods and with equipment, which will positively control dust, fumes, vapors, gases or other atmospheric impurities in accordance with applicable safety requirements.

907-603.02--Materials.

907-603.02.1--HDPE Pipe. Certified lab reports shall be provided from the pipe manufacturer to verify that the physical properties of the materials supplied meet these specifications.

Certification shall be provided that the personnel responsible for the pipe fusion operation are certified / qualified to perform the work. This certification must be provided a minimum 10 working days before start of pipe fusion work.

The pipe shall be fabricated from ultra-high molecular weight HDPE and shall have an ASTM D-3350 Classification of Type III, Class C, Category 5, Grade P34.

The resin used to fabricate the pipe shall have a Plastic Pipe Institute (PPI) recommended hydrostatic stress rating of at least 800 psi at 73.4ºF and a PPI material designation of PE 3408. The material shall be of virgin quality, shall have a melt flow of less than 5.0 gms/10 minutes as determined by ASTM D-1238 and shall exceed 1000 hours on environmental stress crack resistance as per ASTM D-1693.

The pipe shall be Polypipe as manufactured by Polypipe Industries, Gainesville, Texas; Driscopipe as manufactured by Performance Pipe, Plano, Texas; or an approved equal.

Fittings shall be molded or fabricated from high density polyethylene. Fittings shall be molded in accordance with ASTM D-1248, Type III, Class C, Category 5, Grade P34. Fabricated fittings shall be prepared from polyethylene pipe with a manufacturer recommended HDS rating of at least 730 psi based on material with 1460 psi design in accordance with ASTM D-2837.

All pipe joints and fittings shall be joined together by Thermal Butt Fusion. Polyethylene pipe lengths, fittings and fanged connection to be used shall be of the same type, grade and class of polyethylene compound and shall be supplied by the same raw material supplier.

Diameter and standard dimension ratio for each application is given on the Project Drawings

Casing Pipe shall meet the provisions in special provision 907-262.

907-603.02.1.1--Fabrication. The inside and outside surface of all material shall be free from nicks, scratches, and other surface defects and blemishes. The pipe shall be homogeneous throughout, free of any bubbles, voids, or inclusions. The jointing areas of each length of pipe shall be free from dents and gouges.

907-603.02.1.2--Source Quality Control. HDPE pipe shall have a minimum burst pressure at 73.4° F (ASTM D1599) determined according to the following equation:

$$t = \frac{PD}{2S+P}$$

Where
- t = minimum thickness, in inches
- P = burst pressure, in psi
- D = outside diameter, in inches
- S = hoop stress, in psi (1600)

The pipe shall not fail, balloon, burst or weep as defined in ASTM D1598 when tested in accordance with Section 6(g) of ASTM D-2239 and under the following conditions:

Temperature (ºF)	Time (Hours)	Hoop Stress (psi)
73.4	1000	1500
150	1000	800
190	300	500

907-603.02.2--Drilling Fluid. Use a mixture of bentonite clay or other approved stabilizing agent mixed with potable water with a minimum pH of 6.0 to create the drilling fluid for lubrication and soil stabilization.

Vary the fluid viscosity to best fit the soil conditions encountered.

Do not use any other chemicals or polymer surfactants in the drilling fluid without written consent from the Engineer.

Identify the source of water for mixing the drilling fluid.

Approvals and permits are required for obtaining water from such sources as streams, rivers, ponds or fire hydrants.

Any water source used other than a potable water may require a pH test.

907-603.02.3--Flowable Fill. Flowable fill shall meet the requirements of Section 623 of the Standard Specifications.

907-603.02.4--Detection Wire. Detection wire shall be TW, THW, THWN or HMWPE, insulated copper, 10 gauge or thicker wire.

907-603.02.5--Equipment. Diesel, electric, or air-powered equipment will be acceptable, subject to applicable federal and state regulations.

Employ equipment matched to the size of the pipe being installed. The following table gives general guidelines

System Description	Pipe Diameter, inches	Bore Length feet	Torque, foot-pounds	Trust / Pullback pounds
Mini directional drill equipment	Up to 6	Up to 600	Up to 1,899	Up to 20,000
Medium directional drilling equipment	Up to 16	Up to 1000	1,900 to 9,999	20,001 to 69,999
Maximum directional drilling equipment	18 & >	1000 +	10,000 +	70,000 +

Drill rod can meet the bend radius required for the proposed installation.

Employ equipment that will be capable of handling the various anticipated ground conditions. In addition, the equipment shall:

Be capable of minimizing loss of ground ahead of and around the machine and providing satisfactory support of the excavated face at all times.

Provide a system to indicate whether the amount of earth material removed is
equivalent to that displaced by the advance of the machine such that the advance rate may be controlled accordingly.

Alarm system on drilling equipment capable of detecting electrical current as it approaches electric lines.

907-603.03--Construction Requirements.

907-603.03.1--Control Of Tunnel Line And Grade. Establish and be fully responsible for the accuracy of control for the tunnel line and grade.

Establish control points sufficiently far from the tunnel operation not to be affected by construction operations.

Maintain daily records of alignment and grade and shall submit three copies of these records to the Engineer. However, the Contractor remains fully responsible for the accuracy of his work and the correction of it, as required.

907-603.03.2--Bore Hole Diameter. Minimize potential damage from soil displacement / settlement by limiting the ratio of the bore hole diameter to the pipe diameter.

The size of the back reamer bit or pilot bit, if no back reaming is required, will be limited relative to the pipe diameter to be installed as follows

Maximum Pilot or Back-Reamer Bit Diameter When Rotated 360 Degrees

Nominal Inside Pipe Diameter Inches	Bit Diameter Inches
2	4
3	6
4	8
6	10
8	12
10	14
12 and greater	Maximum Product OD plus 6

907-603.03.3--Failed Bore Path. If conditions warrant removal of any materials installed in a failed bore path, as determined by the Engineer, it will be at no cost to the MDOT/Owner.

Promptly fill all voids by injecting all taken out of service products that have any annular space with flowable fill.

Dewatering required during the course of the project to lower water table, to remove standing water, surface drainage seepage, or to protect ongoing work against rising waters or floods shall be considered incidental to the work being performed.

907-603.04--Method of Measurement. Directional drilling of the type specified will be measured by the linear foot of actual installation, measured in place along the surface of the ground. No additions or deductions will be made, for sweeps in either the vertical or horizontal direction to complete the installation. No payment shall be made on abandoned bore.

907-603.05--Basis of Payment. Directional drilling, measured as prescribed above, will be paid for at the contract unit price per linear foot, which price shall include all cost of labor, materials and incidentals necessary to complete the work.

Payment will be made under:

907-603-DD: Directional Drilling, Description - per linear foot

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-603-8 **CODE: (SP)**

DATE: 05/12/2008

SUBJECT: Culverts and Storm Drains

Section 603, Culverts and Storm Drains, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-603.03--Construction Requirements.

907-603.03.2--Bedding. After the first paragraph of the Subsection 603.03.2 on page 356, add the following:

Non-rigid pipe used in cross drains and storm drains shall have a Class B bedding. Non-rigid pipe used in side drains shall have a Class C bedding. No separate measurement will be made for pipe bedding. Costs associated with pipe bedding shall be included in the cost of the pipe.

907-603.03.4--Joining Conduit.

907-603.03.4.1--Storm Drainage. Delete the first sentence of the seventh paragraph of Subsection 603.03.4.1 on page 358, and substitute the following:

Flexible steel conduits shall be firmly joined by coupling bands.

907-603.03.7--Backfilling. After the first paragraph of the Subsection 603.03.7 on page 360, add the following:

Backfill of non-rigid corrugated polyethylene and poly (vinyl chloride) (PVC) pipe used in cross drains and storm drains shall be performed using one of the following methods:

1. Flowable fill meeting the requirements of Section 631 of the Standard Specifications. If flowable fill is used, care shall be taken to prevent the pipe from "floating".
2. Crushed stone aggregate meeting the requirements of Subsection 703.04.3 of the Standard Specification.

No separate measurement will be made for backfilling pipe. Costs associated with backfilling pipe will be included in the cost of the pipe.

907-603.05--Basis of Payment. Add the "907" prefix to pay item nos. 603-ALT, 603-MA thru 603-MH, 603-NA thru 603-NL, 603-PE, and 603-PVC on pages 364 thru 366.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-603-9 **CODE: (SP)**

DATE: 09/15/2004

SUBJECT: Cured-In-Place Pipe

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 603, Culverts and Storm Drains, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as modified by this special provision, is applicable to Cured-In-Place Pipe Only.

907-603.01--Description. This work shall consist of the installation of a resin-impregnated flexible tube, which is formed to the original conduit by use of a hydrostatic head. The resin is cured using hot water under hydrostatic pressure within the tube. The Cured-In-Place Pipe (CIPP) will be continuous and tight fitting. This work shall meet the requirements of ASTM Designations: F 1216, F 1743 and D 790, as modified by this specification.

The Contractor is advised that the liquid flowing through the pipe is sanitary and storm water sewage and includes associated gases produced from such sewage, salt water, typical grit and beach sand.

907-603.01.1--Qualification of Contractor. The person(s) or firm performing the work described in this specification shall be knowledgeable of trenchless rehabilitation products and installation procedures in accordance with the following minimum experience requirements:

The rehabilitation product must have a minimum of 1,000,000 linear feet or 4,000 manhole-to-manhole line sections of successful drainage collection system installation. In addition, at least 50,000 linear feet of the product shall have been in successful service within the State for a minimum of five years.

The manufacturer of the rehabilitation product must provide third party test results supporting the long term performance and structural strength of the product and such data shall be satisfactory to the State. Test samples shall be prepared so as to simulate installation methods and trauma of the product. No product will be approved without independent third party testing verification.

The person(s) or firm performing the work must have had at least five (5) years of active experience in the commercial installation of the product. In addition, the person(s) or firm must have successfully installed at least 50,000 feet of the product in drainage collection systems.

Both the rehabilitation manufacturing and installation processes shall operate under a quality management system which is third-party certified to ISO 9000 or other internationally recognized organization standards. Proof of certification shall be required.

At the preconstruction conference or prior to starting CIPP installation, the Contractor shall furnish evidence of the following requirements:

(A) A signed statement from the person(s) or firm performing the work that the project site has been visited, and that the drainage system has been inspected.

(B) Ability of the Contractor/firm responsible for installation of the CIPP to complete a project of this type. This is to be supported by a list containing a detailed description of the requirements listed above. This list shall include project locations and names/phone numbers of the project owner's representatives who can verify the Contractor/firm's participation on the project, and the names of the person(s) who were in charge of the Contractor's operations.

907-603.02--Materials.

907-603.02.1--Tube. The sewn tube shall consist of one or more layers of absorbent non-woven felt fabric and meet the requirements of ASTM Designation: F 1216 or F 1743, Section 5. The tube shall be constructed to withstand installation pressures, have sufficient strength to bridge missing pipe, and stretch to fit irregular pipe sections.

The wet out tube shall have a uniform thickness that when compressed at installation pressures will meet or exceed the Design thickness.

The tube shall be sewn to a size that when installed will tightly fit the internal circumference and length of the original pipe. Allowance should be made for circumferential stretching during inversion. Overlapped layers of felt in longitudinal seams that cause lumps in the final product shall not be utilized.

The outside layer of the tube, before wet out, shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate monitoring of resin saturation during the resin impregnation (wet out) procedure.

The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident.

The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.

Seams in the tube shall be stronger than the non-seamed felt.

The outside of the tube shall be marked for distance at regular intervals along its entire length, not to exceed five feet. Such markings shall include the Manufacturers name or identifying symbol.

907-603.02.2--Resin. The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy and catalyst system that when properly cured within the tube composite meets the requirements of ASTM Designations: F1216 and F 1743, the physical properties herein, and those which are to be utilized in the Design of the CIPP for this project. The resin shall produce CIPP which will comply with the structural and chemical resistance requirements of this specification.

907-603.02.3--Design Requirements. The CIPP shall be designed as per ASTM Designation: F 1216, Appendix X.1. The CIPP design shall assume no bonding to the original pipe wall.

The Contractor must have performed long-term testing for flexural creep of the CIPP pipe material. Such testing results are to be used to determine the Long-term, time dependent flexural modulus to be utilized in the product design. This is a performance test of the materials (Tube and Resin) and general workmanship of the installation and curing. A percentage of the instantaneous flexural modulus value, as measured by ASTM Designation: D 790, will be used in design calculations for external buckling. The percentage, or the long-term creep retention value utilized, will be verified by this testing. Values in excess of 50% will not be applied unless substantiated by qualified third party test data. The materials utilized for the contracted project shall be of a quality equal to or better than the materials used in the long-term test with respect to the initial flexural modulus used in Design.

The Enhancement Factor, K, to be used in 'Partially Deteriorated' Design conditions shall be assigned a value of seven (7). Application of Enhancement Factors (K) in excess of seven shall be substantiated through independent test data.

The layers of the cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers. If separation of the layers occur during testing of field samples, new samples will be cut from the work. Any reoccurrence may cause rejection of the work.

The cured CIPP pipe material shall conform to the following structural properties.

MINIMUM PHYSICAL PROPERTIES

Property	Test Method	Cured Composite *	Cured Composite **
Modulus of Elasticity	ASTM D 790 (short term)	250,000 psi	400,000 psi
Flexural Stress	ASTM D 790	4,000 psi	4,500 psi

* minimum per ASTM Designation: F 1216
** 400,000 psi Resin

The required structural CIPP wall thickness shall be based as a minimum, on the physical properties above and in accordance with the Design Equations in the Appendix of ASTM Designation: F 1216, and the following design parameters:

Design Safety Factor 2.0
Retention Factor for Long-Term Flexural Modulus
to be used in Design *as determined by Long-Term tests* ..... assume 70%
Ovality .....vitrified clay - assume 2%
Enhancement Factor, k ..... Subsection 907-603.02.3
Groundwater Depth, above invert of the existing pipe ..... 0.0 feet
Soil Depth, above crown of the existing pipe ..... 0 to 6 feet
Soil Modulus ..... Assume sand - 3,000 PSI
Soil Density ..... assume 120 lbs. per ft^3
Live Load ..... H20 Highway

Any layers of the tube that are not saturated with resin prior to insertion into the existing pipe shall not be included in the structural CIPP wall thickness computation.

The CIPP shall provide flow capacity equal to or greater than 100 percent of the original pipe's flow capacity when new.

907-603.02.4--Testing Requirements.

Chemical Resistance. The CIPP shall meet the chemical resistance requirements of ASTM Designation: F 1216, Appendix X2. CIPP samples for testing shall be of tube and resin system similar to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meet these chemical testing requirements.

Hydraulic Capacity. Overall, the hydraulic profile shall be maintained as large as possible. The CIPP shall have a minimum of the full flow capacity of the original pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.

CIPP Field Samples. The Contractor may be required to submit test results from field installations of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties specified have been achieved in previous field applications. Samples for this project shall be made and tested as described in Subsection 907-603.03.3.

The Contractor shall furnish the Engineer with three (3) copies of the manufacturer's certification stating that the materials used meets the requirements of this specifications.

907-603.02.5--Miscellaneous Materials.
Service Connection: New service connection will be as shown on Plans.

Service connection Saddle: Service saddles shall be either tee or wye gasketed skirts as manufactured by John Masville, Certainteed, or approved equal.

Couplings: Couplings shall be Calder Couplings meeting the requirements of ASTM C425 as manufactured by Joints, Inc, Fernco, or equal. All bands shall be 316 stainless steel.

Grouting: Chemical sealing materials may be acrylamide base gel, acrylate base gel, urethane base foam or urethane base gel at the Contractor's option. The Contractor shall submit the properties and characteristics of the material he proposes to use.

907-603.02.6--Preparation.

Public Notification: The Contractor shall be responsible for notifying each residence in the area of the scheduled work when and how long service interruption will occur. This notification is in addition to any notification given to the residents about general construction work to be done.

Bypassing Sewage - The Contractor, when required, shall provide for the flow of sewage around the section or sections of pipe designated for repair. Plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system shall make the bypass. The pump(s) and bypass line(s) shall be of adequate capacity to accommodate the sewage flow. The Owner may require a detail of the bypass plan to be submitted.

907-603.03--Construction Requirements.

907-603.03.1--Installation.

907-603.03.1.1--Cleaning. All pipe which is scheduled to be lined-in-place shall be cleaned prior to lining.

Lines designated for cleaning shall be scheduled with the Engineer. Daily logs shall be maintained to record the location of the lines cleaned, the lengths of the lines cleaned, the volume and type of debris removed from the line, and other pertinent information to assist the Engineer with regard to the condition of the line.

Cleaning shall generally be accomplished from the upstream manhole. If an obstruction prevents cleaning from the upstream manhole, the Contractor shall attempt to remove the obstructions from the downstream manhole. If obstructions prevent the proper cleaning, the Engineer may order a point repair as hereinafter specified.

Acceptable cleaning method are:

Bucket Machine: Rod the sewer line with power driven steel rods of sufficient length, gauge and augers to loosen all solids and materials. Remove the loosened solids by means of a clam-shell bucket or other acceptable means dragged through the sewer line. Brush the sewer line with mechanically driven power brushes. Flush the line with clean water.

Hydraulic Cleaning: High velocity clean water shall be pumped through the sewer at 800 to 1000 psi. The hydraulic cleaning shall be accomplished with self propelled nozzles specifically designed to clean and flush the lines. The cleaning shall be accomplished with as many passes as necessary to properly clean the system.

The Contractor shall be responsible for removing and disposing of all debris collected during the cleaning operation in accordance to the applicable solid waste disposal regulations in the State of Mississippi.

The Contractor shall have equipment available to remove roots which have penetrated the pipe.

The selection of the equipment necessary to perform the cleaning operation shall be the sole responsibility of the Contractor. If the equipment fails to properly clean the pipe, the Contractor shall replace the equipment at his own expense.

907-603.03.1.2--Video Inspection. All pipe which is scheduled to be lined-in-place shall be televised after pipe cleaning but prior to lining.

Television inspection shall be performed by experienced personnel trained in locating breaks, obstacles and service connections using closed-circuit color television camera pulled through the selected line. The Contractor's inspector shall view the tape during the inspection and shall verbally identify the sources and estimated quantity and location of infiltration into the system.

A written television report log and video tape shall be furnished on each line inspected. The observations are to be recorded on a television inspection report form. This log shall indicate the internal condition of the sewer segment, the deviations in line and grade, abnormal conditions of the pipe barrel and joints, and the location and quantity of each source of infiltration and inflow. The distance from the beginning manhole shall be noted for each observation made on the report form. Photographs of each defect shall be made from the television monitor for further study and justification for rehabilitation.

907-603.03.1.3--Point Repairs. In areas where lining installation is obstructed by a protruding service connection, a collapsed section of line, or existing debris that cannot be removed by cleaning, the Engineer may order a point repair.

Excavate a trench to expose the sewer line to a normal length of ten feet. This length may vary either up or down, however, the average length specified above shall be the basis on which payment is made.

If a section of line is to be removed, the Contractor shall cut the old pipe utilizing saw cutters. Squeeze cutters are prohibited. Replace the section with PVC and couplings as hereinbefore specified in strict accordance with the manufacturer's recommendation.

If a service connection requires repair, replace five (5) feet of the sewer and install a service saddle for connection. The new service line shall be attached to the existing service with a coupling as

hereinbefore specified. The saddles and coupling shall be installed in strict accordance with the manufacturer's instructions.

907-603.03.2--Installation. CIPP installation shall be in accordance with ASTM F1216, Section 7, or ASTM F1743, Section 6, with the following modifications:

Resin Impregnation: The quantity of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the potential loss of resin during installation through cracks and irregularities in the original pipe wall.

The Contractor shall designate a location where the tube will be impregnated with resin using distribution rollers and vacuum to thoroughly saturate the tube felt fiber prior to installation. The Contractor shall allow the Engineer to inspect the materials and impregnation procedure.

Tube Insertion: The tube shall inserted through an existing manhole or other approved access point.

The tube can be installed in the pipe using either inversion or a pull-in method as defined within the relevant ASTM standards and fully extend to the next designated manhole or termination point.

If pulled into place, a power winch or its equivalent should be utilized and care should be exercised not to damage the tube as a result of pull-in friction.

Temperature gauges shall be placed between the tube and the host pipe's invert position to monitor the temperatures during the cure cycle.

Curing shall be accomplished by utilizing hot water under hydrostatic pressure or steam pressure in accordance with the Resin Manufacturer's recommended cure schedule.

A cool-down process shall be conducted that complies with the Resin Manufacturer's specification.

Sealing at Manholes: If the CIPP fails to make a tight seal at a manhole, the Contractor shall apply a seal at that point. The seal will be of a material compatible with the CIPP material.

Reinstatement Of Service Connections: It is the intent of these specifications that service connections to buildings be re-opened without excavation, utilizing a remotely controlled cutting device, monitored by a closed circuit television.

Contractor shall certify a minimum of two complete functional cutters plus key spare components are on the job site before each installation or are in the immediate area of the jobsite and can be quickly obtained.

Unless otherwise directed by Engineer, all laterals will be reinstated. No additional payment will

be made for excavations for the purpose of reopening connections and the Contractor will be responsible for all costs and liability associated with such excavation and restoration work.

907-603.03.3--Field Control. CIPP samples shall be prepared for each installation designated by the Engineer or approximately 20 percent of the project's installations. Pipe physical properties will be tested in accordance with ASTM F1216 or ASTM F1743, Section 8, using either method. The flexural properties must meet or exceed the values listed in this specification, Table 1 of ASTM F1216 or the values submitted to the Engineer for this project's CIPP wall design, whichever is greater.

Wall thickness of samples shall be determined as described in paragraph 8.1.6 of ASTM F1743. The minimum wall thickness at any point shall not be less than 87.5 percent of the submitted minimum design wall thickness based on the design information provided in paragraph 1.4.3 of this specification.

Visual inspection of the CIPP shall be in accordance with ASTM F1743, Section 8.6.

907-603.03.4--Clean-Up. The Contractor shall maintain the project site in a reasonable neat and orderly condition, free from accumulations of waste materials and rubbish during the entire CIPP installation period. Remove crates, cartons, trash and flammable waste materials from the work areas by the end of each working day. Do not dispose of trash or debris by burning on project site.

Upon acceptance of the installation work and testing, the Contractor shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work.

907-603.04--Method of Measurement. Cured-in-place pipe of the sizes designated, completed and accepted, will be measured by the linear foot. Video pipe inspection will be measured and paid in accordance with the equipments under pay item no. 907-603-V,Video Pipe Inspection, All Sizes, per linear foot.

907-603.05--Basis of Payment. Cured-in-place pipe, measured as set out above, will be paid for at the contract unit price per linear foot, which shall be full compensation for all work necessary to satisfactorily complete the work set out in this specification.

Payment will be made under:

907-603-D: ___" Cured-In-Place Pipe - per linear foot

907-603-X: Point Repair, Description Pipe - per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-603-10 **CODE: (SP)**

DATE: 07/13/2007

SUBJECT: Pipe Casing - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 603, Culverts and Storm Drains, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as modified by this special provision is applicable to Pipe Casing of Utilities Only.

907-603.01--Description. This work consist of install pipe casing to the lines and grades at the location(s) shown on the Plans.

907-603.02--Materials. Unless specifically shown otherwise on Plans, casing pipe shall be straight, unpainted, 40S, carbon steel pipe meeting the requirements of ASTM Designation: A139, Grade B.

907-603.03--Construction Requirements.

907-603.03.1--General. Ensure that methods used for marking utilities minimizes impact on other construction or maintenance activities, including mowing operations, which may be conducted throughout the project on a cyclic basis. Limit marking to painting unless approved by the Engineer. When and where flagging of existing utilities is required, limit flagging to an area for which construction can be accomplished in no more than 14 consecutive days, unless approved by the Engineer.

When and where installations temporarily eliminate the use of sidewalk areas for periods exceeding two consecutive work days, provide an alternate route that meets the American With Disabilities Act requirements.

Carry out excavation for entry, exit, recovery pits, auger slurry sump pits, or any other excavation. Unless approved by the Engineer, sump pits are required to contain auger fluids if vacuum devices are not operated throughout the boring operation.

Within 48 hours of completing installation of the boring ensure that the work site is cleaned of all excess auger fluids or spoils. Removal and final disposition of excess fluids or spoils is the responsibility of the Jack and Bore (J&B) Contractor and ensure that the work site is restored to pre-construction conditions or as identified on the plans.

Restore excavated areas in accordance with the specifications and Plans.

Ensure that equipment does not impede visibility of the roadway user without taking the

necessary precautions of proper signing and maintenance of traffic operations.

Investigate all sites for possibility of having to manage groundwater problems that may occur due to seasonal changes or natural conditions.

When ground water level must be controlled, use a system and equipment that is compatible with the properties, characteristics, and behavior of the soils as indicated by the soil investigation report.

Damage Restoration: Restore any damage caused by the J&B operation (heaving, settlement, separation of pavement, escaping boring fluid, etc.) at no cost to the MDOT/Owner.

Remediation Plans: When required by the Engineer, provide detailed plans which show how damage to any roadway facility will be remedied. These details will become part of the As-Built Plans. When remediation plans are required, they must be approved by the Engineer before any work proceeds.

An indication of where the leading edge of the casing is located with respect to line and grade and the intervals for checking line and grade. Indication may be provided by using a water gauge or electronic transmitting and receiving devices. Other methods must have prior approval. Maintain a record of the progress at the job site.

Equipment of adequate size and capability to install the product and including the equipment manufacturer's information for all power equipment used in the installation.

A means for controlling line and grade.

A means for centering the cutting head inside the borehole.

Provide a means for preventing voids by assuring:

The rear of the cutting head from advancing in front of the leading edge of the casing by more than 1/3 times the casing diameter and in stable cohesive conditions not to exceed 8 inches.

In unstable conditions, such as granular soil, loose or flowable materials, the cutting head is retracted into the casing a distance that permits a balance between pushing pressure, pipe advancement and soil conditions.

Development of and maintaining a log of the volume of spoil material removal relative to the advancement of the casing.

Provide adequate casing lubrication.

An adequate band around the leading edge of the casing to provide extra strength in loose unstable materials when the cutting head has been retracted into the casing to reduce skin friction as well as provides a method for the slurry lubricant to coat the outside of the casing.

At least 20 feet of full diameter auger at the leading end of the casing. Subsequent auger size may be reduced, but the reduced auger diameter must be at least 75 percent of the full auger diameter.

Water to be injected inside the casing to facilitate spoil removal. The point of injection shall be no closer than two feet from the leading edge of the casing.

J&B Documentation Requirements:

Boring Path Report: Furnish a Bore Path Report to the Engineer within 14 days of the completion of each bore path. Submit the As-Built-Plans to the Engineer within 30 calendar days. No payment will be made for J&B work until the Bore Path Report has been delivered. Include the following information in the report:

Location of project and any assigned project number.

Name of person collecting data, including title, position and company name.

Investigation site location (Contract plans station number or reference to a permanent structure within the project right-of-way).

Identification of the detection method used.

Spoils removal log.

As-built placement plans showing plan and profile, cross-section, boring location and subsurface conditions. Reference the shown plan elevations to Project grid system. Submittal of electronic plans data in lieu of hard copy plans may be approved by the Engineer if compatible with the Engineers software.

As-Built Plans: Provide the Engineer with a complete set of As-Built-Plans showing all bores (successful and failed) within 30 calendar days of completion of the work. Plans must be dimensionally correct copies of the Contract plans. Include notes on the plans stating the final bore path diameter, casing diameter, size and type of carrier pipes placed within the casing, drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and casing or bore path placed out of service. Produce the plans as follows:

On the Contract plan view, show the centerline location of each bore path, installed or installed and placed out of service, accurately to within 1 inch at the ends and other points physically observed.

Provide a profile plan for each bore path. Show the ground surface at each bore path, installed, or installed and placed out of service, accurately to within 1 inch at the ends and other points physically observed. Show the remainder of the vertical alignment of each casing installed, or installed and placed out of service and note the accuracy with which the installation was

monitored. On profile plans for bore paths crossing, show the contract plans stationing. On the profile plans for bore paths paralleling the roadway show the contract plans stationing. If the profile plan for the bore path is not made on a copy of one of the Project Drawing profile or cross-section sheets, use a 10 to 1 vertical exaggeration.

If a bore path is not completed, show on the plans the failed bore path along with the final bore path. Note the failed bore path as "Failed Bore Path." Also show the location and length of the cutting head and any product not removed from the bore path.

Show the diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during subsoil investigation or the installation, show the type of material, horizontal and vertical location, top elevation and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

907-603.03.2--Quality Assurance. Have a representative who is thoroughly knowledgeable of the equipment and boring procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations. Notify the Engineer 48 hours in advance of starting work. Do not begin the installation until the Engineer is present at the job site and agrees that proper preparations have been made.

907-603.03.3--Project Site Conditions.

Temporary Service: The Contractor shall be responsible for providing water to the site if required. The Contractor shall also be responsible for providing sewer facilities (chemical toilets).

The Contractor will provide for temporary power at the site.

The casing pipe must be straight seam pipe or seamless pipe.

All steel pipe may be bare inside and out, with the manufacturer's recommended minimum nominal wall thicknesses to meet the greater of either installation, loading or carrier requirements.

Ensure that steel pipe casing of insufficient length achieves the required length through fully welded joints. Ensure that joints are air-tight and continuous over the entire circumference of the pipe with a bead equal to or exceeding the minimum of either that required to meet the thickness criteria of the pipe wall for jacking and loading or service life. A qualified welder must perform all welding.

Carrier Pipe Spacers: Wood shall be Southern pine S4S medium grade or better, minimum 24 inches long, conforming to AASHTO M168. Skids shall be treated in accordance with AWPA C2. Ends of strapping shall be notched to allow placement of strapping.

Strapping shall be ½-inch wide by 0.02-inch thick, 304 stainless steel.

Other types shall be any design that is essentially corrosion proof and provides insulating protection from possible electrical shorting between casing pipe and carrier pipe.

Runner length shall be a minimum of two inches

Spacing between spacers shall be in accordance with the pipe manufactures recommendations. As a minimum place spacer within one foot of each side of joint and but not to exceed eight feet on centers

Casing Pipe Seals: End seals shall be manufactured from styrene-butadiene rubber, 3/8 inch thick to resist damage from backfill and compaction with ½ inch stainless steel banding and non-magnetic work gear mechanism. Specification based on Advanced Products System Inc. but approved equals will be accepted.

Drilling Fluid: Water and polymer surfactant with approximately 61 percent diesel fuel, 15 percent sodium carboxyl methyl cellulose, 21.5 percent water and 2.5 percent anionic surfactant.

907-603.03.4--Installation. Casing Pipe shall be installed by either the dry bore method or by drilling fluid bore method.

Dry Bore Method: The drilling hole shall not be larger than 1 inch greater than the outside circumference of the casing.

Water bearing sand and mucky soils will be well pointed as necessary prior to commencing the bore.

All bores will be accomplished with the auger inside the casing with the cutting edges positioned just ahead of the pipe.

Care should be exercised at all times to keep the auger properly positioned within the encasement pipe and to maintain sufficient forward pressure upon the encasement pipe to quickly pass through any areas of loose soil.

Boring will be carefully observed for comparison between the amount of cuttings removed from the hole and the diameter of the bore together with the distance the auger has traveled in the bore. Excessive amounts of cuttings removed from the bore may indicate caving or spalling of the bore wall and the bore shall be stopped until a method for completing the bore acceptable to the Engineer has been agreed upon.

Drilling Fluid Bore Method: Use one of the following two methods:

Method Number 1: The casing shall be installed by drilling a hole of a size not larger than 1-inch around the outside circumference of the casing with an open type bit that leaves the cuttings in place. A gel-forming colloidal drilling fluid consisting of at least 10 percent by weight of aqua-gel, or the equivalent of other gel-forming types, shall be used when boring in sandy subsoils, fine sands, water bearing sands or any soils which easily spall or cave and a gel-forming colloidal

drilling fluid consisting of at least 5 percent by weight of aqua-fel, or the equivalent of other gel-forming types, shall be used when boring in dense consolidated soils, to consolidate the cuttings, seal the wall of the bore and furnish lubrication for subsequent removal of the cuttings and installation of the casing immediately thereafter. The percentage of gel-forming agent will be increased as required by soil conditions. All information necessary to establish the quality or equivalency of other gel-forming types will be furnished by the Contractor. When boring sandy subsoils, fine sands, water bearing sand or any soil which easily spalls or caves, the bore entrance will be plugged in order to retain the drilling fluid and the cuttings within the bore until immediately before the casing is installed. Water bearing sands and mucky soils will be well pointed as necessary prior to commencing the bore. When drilling through dense consolidated soils the cuttings may be partially removed from the hole in approximately three foot plugs by use of compressed air or by retraction of the cutter or reamer. No cutter or reamer larger than 3-inches in diameter shall have holes therein larger than 5/16 inch in diameter through which drilling fluid is forced during boring.

Method Number 2: The casing shall be installed by drilling a hole of a size not larger than 1-inch around the outside circumference of the casing with an open type bit that leaves the cutting in place. Drilling fluid composed of water and polymer-surfactant of approximately 61 percent diesel fluid, 15 percent sodium carboxyl methyl cellulose of same quality as drispac, 21.5 percent water and 2.5 percent anionic surfactant will be used to consolidate the cuttings, seal the wall of the bore and furnish lubrication for subsequent removal of the cuttings and installation of the casing immediately thereafter. When boring sandy subsoils, fine sands, water bearing sand or any soil which easily spalls or caves, the bore entrance will be plugged in order to retain the drilling fluid and the cuttings within the bore until immediately before the casing is installed. Water bearing sands and soils will be well pointed as necessary prior to commencing the bore. When drilling through dense consolidated soils the cuttings may be partially removed from the hole in approximately three foot plugs by use of compressed air. The polymer-surfactant mixture or drilling fluid when used in dense consolidated soils will consist of not less than 2 percent of polymer-surfactant by volume and when used in sandy subsoils, fine sands or any soil which easily caves will consist of at least 4 percent of polymer-surfactant by volume. The percentage of polymer-surfactant will be increased as required by soil conditions. All information necessary to establish the quality or equivalency of any ingredient will be furnished by the Contractor.

When pulling HDPE and PE carrier pipe in casing pipe use either a pulling head or a suitable wraparound sleeve with rubber protective coating to prevent the pulling cables from damaging the pipe. Never pull HDPE or PE pipe by the flange end. Use of lubricants (flax soap or drilling mud) between casing spacers and casing can ease installation.

When pulling PVC Casing Pipe in casing pipe in casing pipe, a bell joint restraint is required at any bell connection within the encasement. PVC pipe may be installed in the casing using a winch drawn cable or jacking. In both methods, care must be exercised to avoid damage to pipe or bell joints. Use of lubricants (flax soap or drilling mud) between skids or casing spacers and casing can ease installation.

Do not use petroleum products as prolong exposure to this type of material could damage the carrier pipe gaskets.

After completion of installation and line testing, the casing ends shall be sealed as shown on Plans.

All cased crossings shall be marked with signs in accordance with the details shown on the drawings.

Failed Bore Path: If conditions warrant removal of any materials installed in a failed bore path, as determined by the Engineer, it will be at no cost to the MDOT/Owner. Promptly fill all voids by injecting all taken out of service products that have any annular space with flowable fill.

Removal of Abandoned Carrier Pipe: Contractor shall remove the existing water and gas carrier pipe from the existing pipe casing and fill by injecting flowable fill.

907-603.04--Method of Measurement The lengths of jacked or bored pipe will be measured by the linear foot.

907-603.05--Basis of Payment. Accepted quantities of jacked or bored pipe, measured as prescribed above, will be paid for at the contract unit price per linear foot, which price thus paid shall be full compensation for completing the work.

Payment will be made under:

907-603-A: ___" Steel Pipe, Jacked or Bored * - per linear foot

* Optional Description

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-604-2 **CODE: (SP)**

DATE: 07/11/2007

SUBJECT: Manholes and Covers - Utilities

PROJECT: ER-9354-00 (002) / 104637301 & 302 -- Hancock County

Section 604, Manholes, Inlets and Catch Basins, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable for Utility Manholes and Covers Only.

907-604.02--Materials. Reinforced precast concrete manholes shall be in accordance with ASTM Designation: C478 with gaskets in accordance with ASTM Designation: C923.

Standard and water tight lids and frames shall be ASTM A48, Class 30B cast iron construction, machined flat bearing surface, removable lid, closed lid design; live load rating of H-20, lid cast with the word "SEWER" for sanitary sewer systems and "STORM" for storm sewer systems. Lid and frame manufactured by DEWS, VULCAN, NEENA, or approved equal.

Manhole steps shall be ½-inch diameter, deformed steel reinforcing bar, ASTM A615, Grade 60 coated with polypropylene meeting the requirements of ASTM Designation: D4101. Steps shall have a minimum leg center of 10 inches and a minimum projection of 5.75 inches.

Base pad shall be cast-in-place concrete of type specified with leveled top surface.

Shaft construction shall be concentric with eccentric cone top section; lipped male/female dry joints; sleeved to receive pipe. Clear inside dimensions shall be 48 inches in diameter for a manhole depth of 7' 0" or less, and 60 inches in diameter for a manhole depth of more than 7' 0".

The clear lid opening shall be a minimum of 30 inches, or as indicated on the plans.

Pipe openings shall be provided as indicated or as required.

907-604.03--Construction Requirements.

907-604.03.1--General. Manholes shall be constructed at the locations and elevations indicated and as detailed on the plans. Installed pipe invert elevations at manholes shall not vary by more than 0.05 feet from the invert elevations designated on the plans.

Joints in precast riser sections and tops shall be made using gasket materials in accordance with the manufacturer's written installation instructions.

Manhole floors shall be made of grout and the work shall be free of any rough corners or sudden changes in direction such that a steady uniform flow with a minimum of wave action shall be provided. Changes in direction and grade shall consist of the larges curve radius the manhole diameter will permit.

Manhole steps shall be cast-in-place or driven into precast or site-drilled holes. Steps shall be installed not more than 16 inches apart vertically on the interior wall directly beneath the manhole cover according to ASTM Designation: C478.

Manhole frames and covers shall be installed as detailed and adjusted to required elevation by using precast concrete adjustment rings set in full beds of mortar.

All lifting holes and other voids inside and outside shall be filled with non-shrink grout. The inside of the manhole shall be cleaned of all loose mortar, framing material and other debris.

The inside surface of the manholes shall be painted as described in the Notice To Bidders titled "Painting Utility Components". The manholes shall be inspected prior to installing the coating and any repairs or clean required shall be made prior to the painting. The Contractor shall notify the Engineer 48-hours in advance of applying the coating to allow adequate time for the inspection.

907-604.03.2--Manhole Vacuum Test. Manholes shall be test per ASTM Designation: C1244.

Manholes shall be tested before the ring and cover and grade adjustment rings are installed and before any backfill or compaction has been done.

If the base of the manhole is located below groundwater table, the Engineer shall be given adequate advanced notice prior to performing test.

All pipes entering the manhole shall be temporarily plugged, taking care to securely brace the pipes and plugs to prevent them from being drawn into the manholes.

The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendation.

A vacuum of 10 inches of mercury shall be drawn in the manhole after the valve on the vacuum line of the test head is closed, and the vacuum pump shut off.

The elapsed time shall be measured for the vacuum to drop to 9 inches of mercury.

The manhole test shall pass if the time for the vacuum reading to drop from 10 inches of mercury to 9 inches of mercury meets or exceeds the values indicated in the following table.

Minimum Test Times For Various Manhole Diameters
Seconds

Manhole Depth, Feet	Inside Diameter Of Manhole, Inches		
	48	**60**	**72**
4	4	--	--
6	6	--	26
7	7	20	30
8	8	26	33
10	10	33	41
12	12	39	49
14	14	46	57
16	16	52	67
18	18	59	73
20	20	65	81
22	22	72	89
24	24	78	97
26	26	85	105
28	28	91	113
30	30	98	121

Note: For manhole depths not specifically shown on the above table, round actual depth of manhole to next depth lower (example: For a 9-foot deep manhole, use a depth of 8 feet).

If the manhole fails the test, necessary repairs shall be made and the manhole shall be retested until a satisfactory test is obtained.

907-604.04--Method of Measurement. Precast manholes will be measured per linear foot of depth from the flow line of the manhole to the top of the cover, or as indicated on the plans.

Initial vacuum test of a manhole will be measured per each manhole. Only the initial test of each manhole will be measured for payment. Any additional testing will be performed at no cost to the MDOT/Owner.

907-604.05--Basis of Payment. Precast manholes, measured as prescribed above, will be paid for at the contract bid price per linear foot of depth, which price shall be full compensation for all necessary excavation, sheeting, cribbing, shoring, bracing, well-pointing, furnishing and assembling all elements of the manhole including concrete bases & covers except metallic cover and frame, for all other items of work necessary and incident to the complete construction and for all equipment, labor, tools and incidentals necessary to complete the work.

Initial vacuum test, measured as prescribed above, will be paid for at the contract bid price per each, which price shall be full compensation for furnishing all equipment, labor, tools and incidentals necessary to complete the work.

Payment will be made under:

907-604-C: Precast Manhole, ___" Diameter -per linear foot

907-604-V: Initial Vacuum Test - per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-617-2 **CODE: (IS)**

DATE: 08/12/2005

SUBJECT: Right-Of-Way Markers

Section 617, Right-Of-Way Markers, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is deleted in toto and replaced as follows:

SECTION 907-617 - RIGHT-OF-WAY MARKERS

907-617.01--Description. This work consists of furnishing and placing right-of-way markers in accordance with the plans and these specifications and at points designated on the plans, or as directed. The work also shall include the removal of right-of-way markers from their original locations and resetting at new locations as specified or established.

Generally, Type "A" markers shall be placed in the ground and Type "B" markers shall be placed in concrete areas. The estimated quantity of markers will be shown on the plans, and it is the Contractor's responsibility to verify the type and number of markers required.

907-617.02--Materials. The right-of-way marker shall be constructed using a reinforcement bar of the size indicated and a brass or bronze cap as indicated on the plan sheet. The cap shall be Mark-It® model C/M-HS-3-1/4B, Berntsen® 6000 Series, or approved equal. The cap shall be stamped with information indicated on the plans. The rebar shall meet the requirement of Section 711 of the Standard specifications.

Right-of-way markers for placement in concrete shall be Mark-It® model C/M-SS-3-1/4B, Berntsen® C Series, or approved equal brass or bronze stem designed marker. The cap shall be stamped with information indicated on the plans.

The witness post shall be made of fiberglass or Poly Vinyl Chloride (PVC) and shall not rust, rot or corrode within the service temperature range of -40°F to 140°F. It shall be of the color and size indicated in the plans or contract documents. The color shall not be painted on the marker but shall be pigmented into the material composition of the post. The post shall feature ultra violet (U.V.) inhibitors to eliminate cracking, pealing and deterioration of the post.

907-617.03--Construction Requirements.

907-617.03.1--General. Markers shall be manufactured in accordance with the details shown on the plans and the requirements of this section.

Prior to installation, the rebar shall be checked to assure there are no large burrs or mushrooming on the end that will receive the brass cap. Any burrs shall be filed or ground off before installation. The Contractor shall use rebar drivers to eliminate mushrooming of the rebar during

the driving operations.

Type "B" markers may be installed in freshly placed concrete or placed in cured concrete by drilling and anchoring. The marker shall be anchored using a bonding material recommended by the manufacturer of the marker.

The Contractor shall use specially designed post drivers or other means necessary to eliminate damage to the witness posts during installation. The Contractor will not be required to place witness posts in concrete.

All letters, symbols, and other markings shall be as shown on the plans and shall be neatly imprinted in the caps.

The markers shall be set at the locations designated on the plans, or as directed by the Engineer with assistance as needed by the District Surveyor. The markers shall be set to within 1/4 inch of the lines indicated or established and a minimum of two inches below to a maximum of six inches below the natural ground elevation.

The layout and placement of right-of-way markers shall be performed by, or under the supervision of, or directed by, a Licensed Professional Surveyor who is duly licensed and entitled to practice as a Professional Surveyor in the State of Mississippi and shall have responsible charge for these duties. The duties performed by said Professional shall conform to the definitions under the practice of "land surveying" in Mississippi Law. The location of the markers shall be as shown in the plans. Accuracy standards for placement of markers shall be 0.05 feet relative to the project control established by MDOT using either state plane coordinate monuments or centerline control monuments used for construction; or those accuracies as listed in the Mississippi State Board of Licensure for Professional Engineers and Surveyors publication entitled "Standards of Practice for Surveying in the State of Mississippi". The more stringent of these two accuracy standards will apply and shall be used. The Contractor shall not engage the services of any person in the employ of the Department for the performance of any of the work covered by this Section or any person who has been employed by the Department within the past six months, except those who have legitimately retired from service with the Department during this period.

The Department will establish, one time only, State Plane Coordinate System horizontal control monuments. It shall be the responsibility of the Contractor to establish additional control as may be required to facilitate the staking of the right-of-way. Control monuments set by the Contractor shall meet the minimum standards of surveying as required by the Mississippi State Board of Licensure for Professional Engineers and Surveyors. The accuracy of the control established by the Contractor shall be not less than 1:20,000 relative to the control provided by the Department. The Contractor shall reference, guard and protect control points from damage and obliteration. The Contractor shall verify the accuracy of the control points before proceeding with the installation.

907-617.03.2--Removal of Existing Markers. Existing right-of-way markers which are specified to be removed shall be removed in accordance with the plans or as directed by the

Engineer without additional compensation.

907-617.03.3--Certification. After all the markers are installed, the Licensed Professional Surveyor tasked with responsible charge for this installation shall submit a written certification to the Engineer certifying that all right of way markers were set at the locations designated on the plans, or otherwise directed by MDOT, and to the specified tolerances. The certification shall also include a copy of the right-of-way plan sheets with the right-of-way marker table completed for all locations in which the Licensed Professional Surveyor installed right-of-way markers. The table shall be completed showing the as-built (in-place) northing and easting location based on the State Plane Coordinate System. Each right-of-way plan sheet shall be signed and stamped by the Licensed Professional Surveyor.

The Licensed Professional Surveyor tasked with responsible charge will furnish a signed and stamped Final Right-of-Way Plat meeting the minimum standards of surveying for a Class A, B, or C survey as required by the Mississippi State Board of Licensure for Professional Engineers and Surveyors. In no incidence shall the standards for surveying be less accurate than a Class C survey.

The Final Right-of-Way Plat shall show all horizontal control points, whether provided by the Department or by the Contractor. In addition, the as-built project alignment shall be shown with stationing, curve data, and State Plane Coordinates for the BOP, PC's, PT's, and EOP.

907-617.04--Method of Measurement. Right-of-way markers will be measured by the unit. Such measurements shall include all the components and imprinting necessary for the right-of-way marker, the witness post and surveying decals, all labor, materials and incidentals necessary to furnish a complete in-place right-of-way marker.

907-617.05--Basis of Payment. Right-of-way markers will be paid for at the contract unit price per each, which shall be full compensation for completing the work.

Payment will be made under:

907-617-A: Right-of-Way Marker - per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-618-4 **CODE: (SP)**

DATE: 12/12/2006

SUBJECT: Placement of Temporary Traffic Stripe

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-618.03.3--Safe Movement of Traffic. Delete subparagraphs (2) and (3) of Subsection 618.03.3 on pages 415 & 416, and substitute the following:

(2) Temporary edge lines on projects requiring shoulders constructed of granular material may be delayed for a period not to exceed three (3) days.

Temporary edge lines placed on the final pavement course of projects requiring paved shoulders with surface treatment may be placed on the adjacent shoulder in as near the permanent location as possible until the surface treatment is placed. When the edge lines are obliterated by the placement of the surface treatment, the edge lines shall be placed in the permanent stripe location. The replacement of edge lines may be delayed for a period not to exceed three (3) days for a two or three-lane roads.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-619-4 **CODE: (SP)**

DATE: 12/4/2007

SUBJECT: Construction Safety Fence

Section 619, Traffic Control for Construction Zones, of the 2004 Edition of Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-619.02--Materials. After Subsection 619.02.13 on page 424, add the following:

907-619.02.14--Construction Safety Fence. Construction safety fence shall be 4-foot orange safety fence manufactured by Tenex, Nilex, Roadtech , or approved equal.

Steel tee post shall meet the requirements of Subsection 712.05.2.2.

Tie wire shall meet the requirements of Subsection 712.13.

907-619.03--Construction Requirements. After Subsection 619.03.9 on page 427, add the following:

907-619.03.10--Construction Safety Fence. In order to route the public, workers, and equipment around the work area or certain parts of the work areas, the Contractor shall install the fence at the location(s) shown on the plans, or directed by the Engineer. The fence shall be supported by at least 6-foot tee post spaced on 10-foot centers. The fence shall be secured to the post by aluminum fence tie wire.

907-619.05--Basis of Payment. After the last pay item listed in Subsection 619.05 on page 430, add the following.

907-619-L: Construction Safety Fence - per linear foot

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-626-4 **CODE: (SP)**

DATE: 06/10/2004

SUBJECT: Thermoplastic Markings

Section 626, Thermoplastic Traffic Markings, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-626.02--Materials. After the first paragraph of Subsection 626.02.1 on page 443, add the following:

Blue-ADA thermoplastic marking material shall meet the requirements of Subsection 720.02 with the exception that the color shall be blue-ADA.

907-626.04--Method of Measurement. After the last paragraph of Subsection 626.04 on page 446, add the following:

Thermoplastic Legend, Handicap Symbol of the color specified will be measured per each as determined by actual count in place.

907-626.05--Basis of Payment. Delete the first sentence under Subsection 626.05 on page 446 and substitute the following:

Thermoplastic traffic markings will be paid for at the contract unit price per mile, linear foot, square foot or each, as applicable, which shall be full compensation for completing the work.

Add the following pay items after pay item 626-G on page 446.

907-626-G:	Thermoplastic Detail Stripe, Blue-ADA	- per linear foot
907-626-H:	Thermoplastic Legend, Blue-ADA	- per square foot
907-626-H:	Thermoplastic Legend, Handicap Symbol, Color	- per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-626-15 **CODE: (IS)**

DATE: 03/17/2008

SUBJECT: Thermoplastic Traffic Markings

Section 626, Thermoplastic Traffic Markings, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-626.05--Basis of Payment. Add the "907" prefix to the pay items listed on page 446.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-701-3 **CODE: (IS)**

DATE: 11/30/2007

SUBJECT: Hydraulic Cement

Section 701, Hydraulic Cement, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete Subsection 701.01 on pages 595 & 596, and substitute the following:

907-701.01--General. The following requirements shall be applicable to hydraulic cement:

Only hydraulic cements conforming to Section 701 shall be used. Hydraulic cements shall not be listed or designated as meeting more than one AASHTO or Department type.

Different brands of hydraulic cement, or the same brand of hydraulic cement from different mills, shall not be mixed or used alternately in any one class of construction or structure, without written permission from the Engineer; except that this requirement will not be applicable to hydraulic cement treatment of design soils, or bases.

The Contractor shall provide suitable means for storing and protecting the hydraulic cement against dampness. Hydraulic cement, which for any reason, has become partially set or which contains lumps of caked hydraulic cement will be rejected. Hydraulic cement salvaged from discarded or used bags shall not be used.

The temperature of bulk hydraulic cement shall not be greater than l65°F at the time of incorporation in the mix.

Acceptance of hydraulic cement will be based on the certification program as described in the Department's Materials Division Inspection, Testing, and Certification Manual and job control sampling and testing as established by Department SOP.

Retests of hydraulic cement may be made for soundness and expansion within 28 days of test failure and, if the hydraulic cement passes, it may be accepted. Hydraulic cement shall not be rejected due to failure to meet the fineness requirements if upon retests after drying at 212°F for one hour, it meets such requirements.

Delete Subsection 701.02 on page 596, and substitute the following:

907-701.02--Portland Cement.

907-701.02.1--General.

907-701.02.1.1--Types of Portland Cement. Portland cement (cement) shall be either Type I or Type II conforming to AASHTO Designation: M85 or Type I(MS), as defined by the description below Table 1. Type III cement conforming to AASHTO Designation: M85 or Type III(MS), as defined by the description below Table 1, may be used for the production of precast or precast-prestressed concrete members.

907-701.02.1.2--Alkali Content. All cement types in this Subsection shall meet the Equivalent alkali content requirement for low-alkali cements listed in AASHTO Designation: M85, Table 2.

907-701.02.2--Replacement by Other Cementitious Materials. The maximum replacement of cement by weight is 25% for fly ash or 50% for ground granulated blast furnace slag (GGBFS). The minimum tolerance for replacement shall be 5% below the maximum replacement content. Replacement contents below this minimum tolerance by fly ash or GGBFS may be used, but shall not be given any special considerations, like the maximum acceptance temperature for Portland cement concrete containing pozzolans. Special considerations shall only apply for replacement of cement by fly ash or GGBFS.

907-701.02.2.1--Portland Cement Concrete Exposed to Soluble Sulfate Conditions or Seawater. When Portland cement concrete is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash, GGBFS, metakaolin, or silica fume shall be as follows in Table 1.

Table 1- Cementitious Materials for Soluble Sulfate Conditions

Sulfate Exposure	Water-soluble sulfate (SO4) in soil, % by mass	Sulfate (SO4)in water, ppm	Cementitious material required*
Moderate and Seawater	0.10 - 0.20	150 - 1,500	Type II **, ***, **** cement, or Type I cement with one of the following replacements of cement by weight: 25% Class F fly ash, 50% GGBFS, 10% metakaolin, or 8% silica fume
Severe	0.20 - 2.00	1,500 - 10,000	Type II ** cement with one of the following replacements of cement by weight: 25% Class F fly ash, 50% GGBFS, 10% metakaolin, or 8% silica fume

* The values listed in this table for replacement of Portland cement by the cementitious materials listed are maximums and shall not be exceeded. The minimum tolerance for replacement shall be 0.5% below the maximum replacement content. Replacement contents below this minimum tolerance by the cementitious materials listed in this table do not meet the requirements for the exposure conditions listed and shall not be allowed.

** Type I cement conforming to AASHTO Designation: M85 with a maximum 8% tricalcium aluminate (C3A) may be used in lieu of Type II cement; this cement is given the designation "Type I(MS)". Type III cement conforming to AASHTO Designation: M85 with a maximum 8% tricalcium aluminate (C3A) may be used in lieu of Type II cement as allowed in Subsection 907-701.02.1; this cement is given the designation "Type III(MS)".

*** Blended cement meeting the sulfate resistance requirements of Subsection 907-701.04 may be used in lieu of Type II as allowed in Subsection 907-701.04. No additional cementitious materials shall be added to or as a replacement for blended cement.

**** Class F fly ash or GGBFS may be added as a replacement for cement as allowed in Subsection 907-701.02.2.

Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed above.

907-701.02.2.2--Cement for Soil Stabilization Exposed to Soluble Sulfate Conditions or Seawater. When Portland cement for use in soil stabilization is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash or GGBFS shall meet the requirements of Subsection 907-701.02.2.1. Neither metakaolin nor silica fume shall be used to bring the cementitious materials into compliance with the requirements of Table 1.

Delete Subsection 701.03 on page 596, and substitute the following:

907-701.03--Masonry Cement. Masonry cement shall conform to ASTM Designation: C 91 and shall only be used in masonry applications.

Delete Subsection 701.04 on page 596, and substitute the following:

907-701.04--Blended Hydraulic Cement.

907-701.04.1--General.

907-701.04.1.1--Types of Blended Cement. Blended hydraulic cements (blended cements) shall be of the following types and conform to AASHTO Designation: M 240:

Type I(SM) – Slag-modified Portland cement
Type IS – Portland blast-furnace slag cement
Type I(PM) – Pozzolan-modified Portland cement
Type IP – Portland-pozzolan cement

Blended cement for use in Portland cement concrete or soil stabilization exposed to the moderate soluble sulfate condition or exposure to seawater as defined in Table 1 shall meet the Sulfate resistance requirement listed in AASHTO Designation: M 240, Table 2 and the "(MS)" suffix shall be added to the type designation.

907-701.04.1.2--Alkali Content. All blended cement types in this Subsection shall meet the Mortar expansion requirements listed in AASHTO Designation: M 240, Table 2.

907-701.04.2--Replacement by Other Cementitious Materials. No additional cementitious materials, such as Portland cement, performance hydraulic cement, fly ash, GGBFS, metakaolin, or others, shall be added to or as a replacement for blended cement.

907-701.04.3--Exposure to Soluble Sulfate Conditions or Seawater. When Portland cement concrete or blended cement for soil stabilization is exposed to moderate soluble sulfate conditions or to seawater, where the moderate soluble sulfate condition is defined in Table 1, the

blended cement shall meet the sulfate resistance requirement listed in AASHTO Designation: M 240, Table 2.

When Portland cement concrete or blended cement for soil stabilization is exposed to severe soluble sulfate conditions, where the severe soluble sulfate condition is defined in Table 1, blended cements shall not be used.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-703-5 **CODE: (SP)**

DATE: 01/31/2008

SUBJECT: Aggregate For Crushed Courses

Section 703, Aggregates, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-703.03.2.4--Gradation. Delete the last sentence of the last paragraph of Subsection 703.03.2.4 on page 611.

907-703.04--Aggregate for Crushed Stone Courses.

907-703.04.1 Course Aggregate. Delete the first sentence of the first paragraph of Subsection 703..06.1 on page 611, and substitute the following:

Coarse aggregate, defined as material retained on No. 8 sieve, shall be either crushed stone, slag, granite, shell; gravel, crushed concrete, or combination thereof.

907-703.04.3--Gradation. Add the following to the "TABLE OF SIZES AND GRADATION OF CRUSHED STONE AGGREGATE" in Subsection 703.04.3 on page 613.

Sieve Size	Percent Passing By Weight	
	Size No. 825	Crushed Stone
2 inch	100	
1 1/2 inch	90 - 100	100
1 inch	75 - 98	90 - 100
3/4 inch		
1/2 inch	60 - 85	62 - 90
3/8 inch		
No. 4	40 - 65	30 - 65
No. 8	28 - 54	
No. 10		15 - 40
No. 16	19 - 42	
No. 40		
No. 50	9 - 27	
No. 200	4 - 18	3 - 16

After the "TABLE OF SIZES AND GRADATION OF CRUSHED STONE AGGREGATE" in Subsection 703.04.3 on page 613, add the following:

907-703.04.4--Crushed Concrete. Crushed reclaimed concrete shall also be allowed as a crushed aggregate course provided it meets the requirements of Subsection 703.04 and the following:

Size No. 825

Sieve Size	Percent Passing By Weight
2 inch	
1 1/2 inch	100
1 inch	90 - 100
3/4 inch	
1/2 inch	60 - 85
3/8 inch	
No. 4	40 - 65
No. 8	28 - 54
No. 10	
No. 16	19 - 42
No. 40	
No. 50	9 - 27
No. 200	2 - 18

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-708-5 **CODE: (IS)**

DATE: 05/12/2008

SUBJECT: Non-Metal Drainage Structures

Section 708, Non-Metal Structures and Cattlepasses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-708.02.1.2--Fly Ash. In the first sentence of Subsection 708.02.1.2 on page 639, change "20 percent" to "25%".

907-708.02.3.2--Marking. Delete the second sentence of Subsection 708.02.3.2 on page 640, and substitute the following:

Machine made pipe shall be marked in accordance with one of the following methods: 1) the pipe shall be inscribed on the outside of the pipe and stenciled on the inside of the pipe, or 2) the pipe shall be inscribed on the inside of the pipe, only. All other pipe may be stenciled.

907-708.17--Corrugated Plastic Pipe Culverts.

907-708.17.1--Corrugated Polyethylene Pipe Culverts. Delete the first sentence of the first paragraph of Subsection 708.17.1 on page 645 and substitute the following.

Corrugated polyethylene pipe shall conform to the requirements of AASHTO Designation: M 294, Type S and/or SP, as applicable, and shall have soil tight joints, unless otherwise specified.

Delete the last sentence of the second paragraph of Subsection 708.17.1 on page 645.

After Subsection 708.17.1 on page 645, add the following:

907-708.17.1.1--Inspection and Final Acceptance of Corrugated Polyethylene Pipe Culverts. Approximately 50% of the installed length of corrugated polyethylene pipe shall be inspected for excess deflection no sooner than 30 days after the embankment material over the pipe is placed to the required subgrade elevation or the maximum required fill height. The inspection shall be performed using either electronic deflectometers, calibrated television or video cameras, or a "go, no-go" mandrel that has an effective diameter of 95% of the nominal inside diameter of the pipe.

Pipe found to have deflection values greater than 5% shall be removed and replaced at no cost to the State.

907-708.17.2--Corrugated Poly (Vinyl Chloride) (PVC) Pipe Culverts. Delete the first sentence of the first paragraph of Subsection 708.17.2 on page 645 and substitute the following.

Corrugated poly (vinyl chloride) (PVC) pipe shall conform to the requirements of AASHTO Designation: M 304 and shall have soil tight joints, unless otherwise specified. Non-perforated PVC pipe used in underdrains shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

After Subsection 708.17.2 on page 645, add the following:

907-708.17.2.1--Inspection and Final Acceptance of Poly (Vinyl Chloride) (PVC) Pipe Culverts. Approximately 50% of the installed length of PVC pipe shall be inspected for excess deflection no sooner than 30 days after the embankment material over the pipe is placed to the required subgrade elevation or the maximum required fill height. The inspection shall be performed using either electronic deflectometers, calibrated television or video cameras, or a "go, no-go" mandrel that has an effective diameter of 95% of the nominal inside diameter of the pipe.

Pipe found to have deflection values greater than 5% shall be removed and replaced at no cost to the State.

907-708.18--Sewer Pipe Used for Underdrains.

907-708.18.1--General. After the second paragraph of Subsection 708.18.1 on page 645 add the following:

In lieu of the pipe listed in this subsection, pipe meeting the requirements of Subsection 708.19 may also be used for plastic underdrain pipe.

907-708.18.3--Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe. After the first sentence of Subsection 708.18.3 on page 645, add the following.

Non-perforated PVC pipe shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

907-708.18.4--Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe. Delete the paragraph in Subsection 708.18.4 on page 645 and substitute the following.

This pipe shall conform to the following requirements. For pipe sizes less than or equal to six inches (≤ 6"), the pipe shall be Class PS46 meeting the requirements of AASHTO Designation: M 278. For pipe sizes greater than six inches (> 6"), the pipe shall meet the requirements of AASHTO Designation: M 304. Non-perforated PVC pipe shall either be manufactured with an ultra-violet light inhibitor or be fully coated with an ultra-violet light inhibitor.

Delete Subsection 708.19 on page 645 and substitute the following:

907-708.19--Corrugated Polyethylene Pipe. This pipe shall be high density polyethylene pipe or drainage tubing meet the requirements of AASHTO Designation: M 294, Type S or SP, or

AASHTO Designation: M 252, Type S or Type SP, as applicable.

907-708.22.2--Exceptions to AASHTO. Delete the sixth paragraph of Subsection 708.22.2 on page 647.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-709-1 **CODE: (SP)**

DATE: 05/05/2008

SUBJECT: Metal Pipe

Section 709, Metal Pipe, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After Subsection 709.02 on page 649, add the following:

907-709.02.1--Aluminized Corrugated Metal Culvert Pipe and Pipe Arches. All aluminized metal pipe and arches shall be manufactured from Type 2 corrugated metal pipe and arches in accordance with the requirements of Subsection 709.02.

907-709.03--Bituminous Coated Corrugated Metal pipe and Pipe Arches.

907-709.03.1--Materials. Delete the first sentence of the first paragraph of Subsection 709.03.1 on page 649, and substitute the following:

Bituminous coated corrugated metal pipe and arches shall conform to the requirements of AASHTO Designation: M 190 and be completely coated inside and out with an asphalt cement which will meet the performance requirements hereinafter set forth.

907-709.05--Polymer Coated Corrugated Metal Pipe and Pipe Arches. Delete the first sentence of the first paragraph of Subsection 709.05 on pages 649 and 650, and substitute the following:

Polymer coated corrugated metal pipe and arches shall conform to the requirements of AASHTO Designation: M 245, except the minimum gauge thickness shall be as shown on the plans or in the contract; however, corrugated metal pipe manufactured from sheets thicker than that specified will be acceptable when approved by the Engineer. The internal diameter of corrugated metal pipe will be determined by inside measurement between the crests of the corrugations. Corrugations greater than 3" x 1" will not be allowed in arch pipe.

907-709.06--Corrugated Metal Pipe for Underdrains. Delete the sentence in Subsection 709.06 on page 650, and substitute the following:

Corrugated metal pipe shall conform to AASHTO Designation: M 36, Type III. Type I pipe which has been perforated to permit the in-flow or out-flow of water may be used in lieu of Type III pipe.

907-709.06.1--Aluminized Corrugated Metal Culvert Pipe For Underdrains. All aluminized corrugated metal pipe for underdrains shall be manufactured from Type 2 corrugated metal pipe

and arches in accordance with the requirements of AASHTO Designation: M 36, Type III. Manufacturer must repair any damaged coating caused from perforating the pipe.

907-709.07--Bituminous Coated Corrugated Metal Pipe for Underdrains. Delete the sentence in Subsection 709.07 on page 650, and substitute the following:

Bituminous coated corrugated metal pipe shall conform to the requirements of AASHTO Designation: M 190, Type A with a bituminous coating applied in accordance with the requirements of Subsection 709.03. Manufacturer must repair any damaged coating caused from perforating the pipe.

907-709.08--Polymer Coated Corrugated Metal Pipe for Underdrains. Delete the sentence in Subsection 709.08 on page 650, and substitute the following:

The metal pipe for underdrains shall conform to the requirements of AASHTO Designation: M 245, Type III and the polymer coating shall conform to the requirements of Subsection 709.05. Type I pipe which has been perforated to permit the in-flow or out-flow of water may be used in lieu of Type III pipe. Manufacturer must repair any damaged coating caused from perforating the pipe.

907-709.09--Corrugated Aluminum Alloy Culvert Pipe and Arches. Delete the first sentence in Subsection 709.09 on page 650, and substitute the following:

Corrugated aluminum culvert pipe and arches shall conform to the requirements of AASHTO Designation: M l96, Type IA.

907-709.10--Corrugated Aluminum Alloy Pipe for Underdrains. Delete the first sentence in Subsection 709.10 on page 650, and substitute the following:

Corrugated aluminum pipe underdrains shall conform to the requirements of AASHTO Designation: M 196, Type III. Type I pipe which has been perforated to permit the in-flow or out-flow of water may be used in lieu of Type III pipe.

907-709.11--Bituminous Coated Corrugated Aluminum Alloy Culvert Pipe and Arches. Delete the sentence in Subsection 709.11 on page 650, and substitute the following:

Bituminous coated aluminum culvert pipe and arches shall conform to AASHTO Designation: M 196, Type IA, and in addition shall be coated inside and out as specified in Subsection 709.03. Manufacturer must repair any damaged coating caused from perforating the pipe.

907-709.13--Bituminous Coated Corrugated Aluminum Alloy Pipe for Underdrains. Delete the sentence in Subsection 709.13 on page 650, and substitute the following:

This pipe shall conform to AASHTO Designation: M 196, Type III, and shall be coated with bituminous material conforming to AASHTO Designation: M 190, type coating as specified. Manufacturer must repair any damaged coating caused from perforating the pipe.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-711-3 **CODE: (IS)**

DATE: 09/26/2005

SUBJECT: Synthetic Structural Fiber Reinforcement

Section 711, Reinforcement and Wire Rope, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After Subsection 711.03.4.3 on page 665, add the following:

907-711.04--Synthetic Structural Fiber. Synthetic structural fibers shall meet the requirements of ASTM Designation: C 1116, Section 4.1.3, Note 3. The fibers shall be monofilament made of polypropylene or polypropylene/polyethylene blend meeting the following conditions:

Property	Results
Length, minimum	1.5 inches
Aspect Ratio (length / equivalent diameter)	90
Breaking tenacity, minimum *	530 mN/tex
(Tensile Strength, minimum	70 ksi)
Chord modulus, minimum *	980 cN/tex
(Modulus of Elasticity, minimum	1,300 ksi)

* When tested in accordance with ASTM Designation: D 3822

The dosage rate for the fibers shall be a minimum of three pounds per cubic yard (3 lb / yd^3). The dosage rate for the fibers when used in pile encasements shall be a minimum of four pounds per cubic yard (4 lb / yd^3).

The manufacturer shall furnish the Engineer three copies of the certified test report(s) showing results of all required tests, and certification that the material meets the specifications.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-713-1 **CODE: (IS)**

DATE: 12/11/2007

SUBJECT: Admixtures for Concrete

Section 713, Concrete Curing Materials and Admixtures, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

After the second paragraph of Subsection 713.01.2 on page 676, add the following.

Type 1-D compound may be used on bridge rails, median barriers, and other structures requiring a spray finish. When Type 1-D compound is used, it will be the Contractor's responsibility to assure that the compound has dissipated from the structure prior to applying the spray finish and that the spray finish adheres soundly to the structure.

Delete Subsection 713.02 on pages 676 & 677, and substitute the following:

907-713.02--Admixtures for Portland Cement Concrete. Admixtures shall only be approved by the Department for classification as a single type following the applicable types from AASTHO Designation: M 154 or M 194, or the definition of a mid-range water reducer listed below with the following exception: when requested by the manufacturer the Department will consider classifying an admixture as both a Type A and a Type D. Admixtures shall only be used in accordance with the manufacturer's recommended dosage range for that type. Where an admixture is classified as both a Type A and Type D, the dosage range for use as a Type A shall not overlap the dosage range for use as a Type D.

Air-entraining admixtures shall comply with AASHTO Designation: M 154. Set-retarding, accelerating, and/or water-reducing admixtures shall comply with AASHTO Designation: M 194. Mid-range water-reducers are classified as water-reducing admixtures that reduce the mix water a minimum of 8% when compared to a control mix with no admixtures when tested in accordance with the requirements in AASHTO Designation: M 194. The type designation for admixtures approved by the Department and classified as meeting the requirements of a mid-range water-reducer shall be "MR".

907-713.02.1--Source Approval. In order to obtain approval of an admixture, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the admixture meets all the requirements of the applicable AASHTO or Department Specification for the specific type and the dosage range for the specific type of admixture.

907-713.02.2--Specific Requirements. Admixtures containing chlorides will not be permitted.

907-713.02.3--Acceptance. The Department reserves the right to sample, for check tests, any shipment or lot of admixture delivered to a project.

The Department reserves the right to require tests of the material to be furnished, using the specific cement and aggregates proposed for use on the project, as suggested in AASHTO Designation: M 154 and outlined in AASHTO Designation: M 194.

Failure to maintain compliance with any requirement of these specifications shall be cause for rejection of any previously approved source or brand of admixture.

With each new lot of material shipped the Contractor shall submit to the State Materials Engineer, a notarized certification from the manufacturer showing that the material complies with the requirements of the applicable AASHTO or Department Specification.

When an admixture is used, it shall be the responsibility of the Contractor to produce satisfactory results.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-714-5 **CODE: (IS)**

DATE: 06/18/2008

SUBJECT: Miscellaneous Materials

Section 714, Miscellaneous Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-714.05--Fly Ash. Delete Subsections 714.05.1 & 714.05.2 on pages 680 & 681, and substitute the following:

907-714.05.1--General. The fly ash source must be approved for listing in the Department's "Approved Sources of Materials" prior to use. The acceptance of fly ash shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual and Department SOP.

Different classes of fly ash or different sources of the same class shall not be mixed or used in the construction of a structure or unit of a structure without written permission from the Engineer.

The Contractor shall provide suitable means for storing and protecting the fly ash from dampness. Separate storage silos, bins, or containers shall be provided for fly ash. Fly ash which has become partially set or contains lumps of caked fly ash shall not be used.

The temperature of the bulk fly ash shall not be greater than 165°F at the time of incorporation into the work.

All classes of fly ash shall meet the supplementary option chemical requirement for available alkalies listed in AASHTO Designation: M 295, Table 2. Class F fly ash shall have a calcium oxide (CaO) content of less than 6.0%. Class C fly ash shall have a CaO content of greater than or equal to 6.0%.

The replacement of Portland cement with fly ash shall be in accordance with the applicable replacement content specified in Subsection 907-701.02.2.

In addition to these requirements, fly ash shall meet the following specific requirements for the intended use.

907-714.05.2--Fly Ash for Use in Concrete. When used with Portland cement in the production of concrete or grout, the fly ash shall meet the requirements of AASHTO Designation: M 295, Class C or F, with the following exceptions:

The loss on ignition shall not exceed 6.0 percent.

The strength activity index with Portland cement shall be at least 55 percent of the control mix at seven days.

No additional cementitious materials, such as blended hydraulic cement, GGBFS, metakaolin, or others, shall be added to or as a replacement for Portland cement when used with fly ash.

907-714.06--Ground Granulated Blast Furnace Slag (GGBFS). Delete Subsection 714.06.1 on page 681, and substitute the following:

907-714.06.1--General. The GGBFS source must be approved for listing in the Department's "Approved Sources of Materials" prior to use. The acceptance of GGBFS shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual and Department SOP.

The Contractor shall provide suitable means for storing and protecting the GGBFS against dampness and contamination. Separate storage silos, bins, or containers shall be provided for GGBFS. GGBFS which has become partially set, caked or contains lumps shall not be used.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing or other additions made to the GGBFS during production.

GGBFS from different mills shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer; except that this requirement will not be applicable to cement treatment of design soils or bases.

No additional cementitious materials, such as blended hydraulic cement, fly ash, metakaolin, or others, shall be added to or as a replacement for Portland cement when used with GGBFS in the production of concrete. The replacement of Portland cement with GGBFS shall be in accordance with the applicable replacement content specified in Subsection 907-701.02.2.

Delete Subsection 714.07 on page 682, and substitute the following:

907-714.07--Additional Cementitious Materials.

907-714.07.1--Metakaolin.

907-714.07.1.1--General. Metakaolin shall only be used as a supplementary cementitious material in Portland cement concrete for compliance with the requirements for cementitious materials exposed to soluble sulfate conditions. Metakaolin from different sources shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer. No additional cementitious materials, such as blended hydraulic cement, fly ash, GGBFS, or others, shall be added to or as a replacement for Portland cement when used with metakaolin in the production of concrete.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing, or other additions made to the metakaolin during production.

907-714.07.1.2--Source Approval. The approval of each metakaolin source shall be on a case by case basis as determined by the State Materials Engineer. In order to obtain approval of a metakaolin source, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable, independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the metakaolin meets all the requirements of AASHTO Designation: M295, including the Effectiveness in contributing to sulfate resistance, Procedure A, listed in AASHTO Designation: M295, Table 4 for Supplementary Optional Physical Requirements, and other requirements listed herein.

In order to demonstrate effectiveness in contributing to sulfate resistance, included in this test data shall be results of metakaolin from the proposed source tested in accordance with ASTM Designation: C 1012. There shall be two sets of test specimens per the following:

a. One set of test specimens shall be prepared using a Type I Portland cement meeting the requirements of AASHTO Designation: M85 and having a tricalcium aluminate (C_3A) content of more than 8.0%,

b. One set of test specimens shall be prepared using a Type II Portland cement meeting the requirements of AASHTO Designation: M85.

c. The proposed metakaolin shall be incorporated at the rate of 10% cement replacement in each set of test specimens and shall meet both of the acceptance criteria listed below for source approval.

The requirement for acceptance of the test sample using Type I Portland cement is an expansion of 0.10% or less at the end of six months. The requirement for acceptance of the test sample using Type II Portland cement is an expansion of 0.05% or less at the end of six months.

907-714.07.1.3--Storage. The Contractor shall provide suitable means for storing and protecting the metakaolin against dampness and contamination. Metakaolin which has become partially set, caked, or contains lumps shall not be used.

907-714.07.1.4--Specific Requirements. Metakaolin shall meet the requirements of AASHTO Designation: M 295, Class N with the following modifications:

1. The sum of $SiO_2 + Al_2O_3 + Fe_2O_3$ shall be at least 85%. The Material Safety Data Sheet shall indicate that the amount of crystalline silica, as measured by National Institute of Occupation Safety and Health (NIOSH) 7500 method, after removal of the mica interference, is less than 1.0%.
2. The loss on ignition shall be less than 3.0%.
3. The available alkalies, as equivalent Na_2O, shall not exceed 1.0%.
4. The amount of material retained on a No. 325 mesh sieve shall not exceed 1.0%.
5. The strength activity index at seven (7) days shall be at least 85%.

907-714.07.1.5--Acceptance. With each new lot of material shipped the Contractor shall submit to the State Materials Engineer a certified test report from the manufacturer showing that the material meets the requirements AASHTO Designation: M295, Class N and the requirements of this Subsection.

The Department reserves the right to sample, for check tests, any shipment or lot of metakaolin delivered to a project.

907-714.07.2--Silica Fume.

907-714.07.2.1--General. Silica fume shall only be used as a supplementary cementitious material in Portland cement concrete for compliance with the requirements for cementitious materials exposed to soluble sulfate conditions. Silica fume from different sources shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer. No additional cementitious materials, such as blended hydraulic cement, performance hydraulic cement, fly ash, GGBFS, or others, shall be added to or as a replacement for Portland cement when used with silica fume in the production of concrete.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing, or other additions made to the silica fume during production.

907-714.07.2.2--Source Approval. The approval of each silica fume source shall be on a case by case basis as determined by the State Materials Engineer. In order to obtain approval of a silica fume source, the Producer/Suppliers shall submit to the State Materials Engineer the following for review: certified test reports, made by an acceptable, independent laboratory regularly inspected by the Cement and Concrete Reference Laboratory of the National Institutes of Standards and Technology, which show that the silica fume meets all the requirements of AASHTO Designation: M307, Table 3, including the Sulfate resistance expansion, listed in the table for Optional Physical Requirements, and other requirements listed herein.

In order to demonstrate effectiveness in contributing to sulfate resistance, included in this test data shall be results of silica fume from the proposed source tested in accordance with ASTM Designation: C 1012. There shall be two sets of test specimens per the following:

a. One set of test specimens shall be prepared using a Type I Portland cement meeting the requirements of AASHTO Designation: M85 and having a tricalcium aluminate (C_3A) content of more than 8.0%,

b. One set of test specimens shall be prepared using a Type II Portland cement meeting the requirements of AASHTO Designation: M85.

c. The proposed silica fume shall be incorporated at the rate of 8% cement replacement in each set of test specimens and shall meet both of the acceptance criteria listed below for source approval.

The requirement for acceptance of the test sample using Type I Portland cement is an expansion of 0.10% or less at the end of six months. The requirement for acceptance of the test sample using Type II Portland cement is an expansion of 0.05% or less at the end of six months.

907-714.07.2.3--Storage. The Contractor shall provide suitable means for storing and protecting the silica fume against dampness and contamination. Silica fume which has become partially set, caked, or contains lumps shall not be used.

907-714.07.2.4--Acceptance. With each new lot of material shipped, the Contractor shall submit to the State Materials Engineer a certified test report from the manufacturer showing that the material meets the Chemical and Physical Requirements of AASHTO Designation: M307.

The Department reserves the right to sample, for check tests, any shipment or lot of silica fume delivered to a project.

907-714.11.6--Rapid Setting Commercial Grouts and Concrete Patching Compounds. Delete the first sentence of the first paragraph of Subsection 714.11.6 on page 690 and substitute the following:

Rapid setting commercial grouts and concrete patching compounds must be approved for listing in the Department's "Approved Sources of Materials" prior to use. Upon approval, a product must be recertified every four (4) years to remain on the "Approved Sources of Materials" list. Each product shall be pre-measured and packaged dry by the manufacturer.

907-714.11.7--Commercial Grout for Anchoring Doweled Tie Bars in Concrete. Before Subsection 714.11.7.1 on page 691, add the following:

Approved Non-"Fast Set" Epoxy anchor systems as specified below may be used for the repair of concrete pavements that do not involve permanent sustained tension applications or overhead applications.

"***Fast Set Epoxy***" may not be used for any Adhesive Anchor Applications. Adhesive Anchor Systems (Fast Set epoxy or otherwise) shall not be used for permanent sustained tension applications or overhead applications. "Fast Set Epoxy" refers to an epoxy produced by the Sika Corporation called Sikadur AnchorFix-3 and repackaged for sale under a variety of names/companies listed at the Federal Highway Administration web site at the following link:

http://www.fhwa.dot.gov/Bridge/adhesives.cfm

907-714.11.7.4--Acceptance Procedure. After the last sentence of the first paragraph of Subsection 714.11.4 on page 691, add the following:

Upon approval, a product must be recertified every four (4) years to remain on the "Approved Sources of Materials" list.

907-714.11.8--Epoxy Joint Repair System.

907-714.11.8.1--General. After the last sentence of the first paragraph of Subsection 714.11.8.1 on page 692, add the following:

Upon approval, a product must be recertified every four (4) years to remain on the "Approved Sources of Materials" list.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-715-3 **CODE: (IS)**

DATE: 01/25/2008

SUBJECT: Roadside Development Materials

Section 715, Roadside Development Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-715-02.2.1--Agricultural Limestone. Delete the first sentence of Subsection 715-02.2.1 on page 704 and substitute the following.

Agricultural limestone shall be either a hard-rock limestone material or a marl or chalk agricultural liming material as addressed in the latest amendment to the Mississippi Agricultural Liming Material Act of 1993, published by the Mississippi Department of Agriculture and Commerce.

907-715.02.2.1.1--Screening Requirements. Delete the first sentence of Subsection 715.02.2.1.1 on page 704.

Delete Subsection 715.02.2.1.2 on page 704 and substitute the following:

907-715-02.2.1.2--Calcium Carbonate Equivalent. Marl or chalk liming material shall not have less than 70% calcium and magnesium carbonate calculated as calcium carbonate equivalent when expressed on a dry weight basis.

907-715-02.2.1.3--Neutralizing Values. Hard-rock limestone material shall have a minimum Relative Neutralizing Value (RNV) of 63.0%, which is determined as follows:

% RNV = CCE x (% passing #10 mesh + % passing #50 mesh)/2

Where: CCE = Calcium Carbonate Equivalent

907-715.03--Seed.

907-715.03.2--Germination and Purity Requirements. Add the following to Table B on page 705.

Name (Kind)	Name (Variety)	Percent Germination	Percent Purity
GRASSES			
Rye Grass	Annual	80	98

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-720-1 **CODE: (IS)**

DATE: 3/17/2008

SUBJECT: Pavement Markings Materials

Section 720, Pavement Marking Materials, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-720.02--Thermoplastic Pavement Markings. Delete the first paragraph of Subsection 720.02 on page 730 and substitute the following:

The thermoplastic material shall be lead free and conform to AASHTO Designation: M 249 except the glass beads shall be moisture resistant coated.

After the first sentence of the second paragraph of Subsection 720.02 on page 730, add the following:

In addition, the certification for the thermoplastic material shall state that the material is lead free.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SUPPLEMENT TO SPECIAL PROVISION NO. 907-804-8

DATE: 06/09/2008

SUBJECT: Concrete Bridges and Structures

Before the first sentence of 907-804.02.1 on page 1, add the following:

Delete the third and fourth sentences of the first paragraph of Subsection 804.02.1 on page 846, and substitute the following:

For projects with 1000 cubic yards and more, quality control and acceptance shall be achieved through statistical evaluation of test results. For projects of more than 200 but less than 1000 cubic yards, quality control and acceptance shall be achieved by individual test results.

Before the first sentence of Subsection 907-804.02.10 on page 2, add the following:

Delete the first sentence of the first paragraph of Subsection 804.02.10 on page 850 and substitute the following:

At least 30 days prior to production of concrete, the Contractor shall submit to the Engineer proposed concrete mix designs complying with the Department's *Concrete Field Manual*.

Delete the second paragraph of Subsection 907-804.02.11 on page 3 and substitute the following:

For projects with 1000 cubic yards and more, the concrete batch plant shall meet the requirements for an automatic system capable of recording batch weights. It shall also have automatic moisture compensation for the fine aggregate. For projects of more than 200 but less than 1000 cubic yards the plant can be equipped for manual batching with a fine aggregate moisture meter visible to the plant operator.

Delete Subsection 907-804.02.13 on page 4 and substitute the following:

907-804.02.13--Quality Assurance Sampling and Testing. Delete subparagraph c) in Subsection 804.02.13 on page 858 and substitute the following:

c) For concrete, the Contractor's QC and Department's QA testing of concrete compressive strengths compare when using the data comparison computer program with an alpha value of 0.01 for projects with 1000 cubic yards and more; or, strength comparisons are within 990 psi for projects of more than 200 but less than 1000 cubic yards.

In Table 5 of Subsection 804.02.13 on page 858, delete "and FM" from the requirements on line A.3.

After Subsection 907-804.02.13.1.4 on page 4, add the following:

907-804.02.13.1.5--Compressive Strength. Delete the heading of the second paragraph of Subsection 804.02.13.1.5 on page 860 and substitute the following:

Projects with 1000 Cubic Yards and More.

Delete the second heading in Subsection 804.02.13.1.5 on page 860 and substitute the following:

Projects of More Than 200 but Less Than 1000 Cubic Yards.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-804-8 **CODE: (IS)**

DATE: **02/05/2008**

SUBJECT: Concrete Bridges And Structures

Section 804, Concrete Bridges And Structures, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-804.02-- Materials.

907-804.02.1--General. Add the following materials to the list of materials in Subsection 804.02.1 on page 847.

Blended Cement ..... 907-701.01 and 907-701.04
Ground Granulated Blast Furnace Slag (GGBFS) 907-714.06
Metakaolin 907-714.07
Silica Fume 907-714.07.2

907-804.02.8--Laboratory Accreditation. In Table 1 of Subsection 804.02.8 on page 849, substitute AASHTO: R 39 - Making and Curing Concrete Test Specimens in the Laboratory for AASHTO: T 126 - Making and Curing Concrete Test Specimens in the Laboratory.

907-804.02.9--Testing Personnel. Delete Table 2 in this subsection and replace it with the following.

Table 2

Concrete Technician's Tasks	Test Method Required	Certification Required**
Sampling or Testing of Plastic Concrete	AASHTO Designation:T 23, T 119, T 121, T 141, T 152, T 196, and ASTM Designation: C 1064	MDOT Class I certification
Compressive Strength Testing of Concrete Cylinders	AASHTO Designation: T 22 and T 231	MDOT Concrete Strength Testing Technician certification
Sampling of Aggregates	AASHTO Designation: T 2	Work under the supervision of an MDOT Class II certified technician
Testing of Aggregates	AASHTO Designation: T 19, T 27, T 84, T 85, T 248, and T 255	MDOT Class II certification
Proportioning of Concrete Mixtures*	AASHTO Designation: M 157 and R 39	MDOT Class III
Interpretation and Application of Maturity Meter Readings	AASHTO Designation: T 325 and ASTM Designation: C 1074	MDOT Class III or Two hours maturity method training

* Technicians making concrete test specimens for meeting the requirements of Subsection 804.02.10.1.2 shall be MDOT Class I certified and under the direct supervision of an MDOT Class III certified technician.
** MDOT Class I certification encompasses the same test procedures and specifications as ACI Concrete Field Testing Technician Grade I. MDOT Class II certification encompasses the same test procedures and specifications as ACI Aggregate Testing Technician - Level 1. MDOT Concrete Strength Testing Technician encompasses the same test procedures and specifications as ACI Concrete Strength Testing certification.

For specifics about the requirements for each level of certification, please refer to the latest edition of the Department's *Concrete Field Manual*. Technicians holding current MDOT Class I, MDOT Class II and/or MDOT Class III certifications shall be acceptable until those certifications expire. Upon a current certification expiration, recertification with the certifications listed in Table 2 shall be required. Technicians currently performing either specific gravity testing of aggregates or compressive strength tests shall be required to either:

- have the required MDOT certification listed in Table 2, or
- have a current MDOT Class III certification or work under the direct supervision of current MDOT Class III technician, and have demonstrated the specific gravity and/or compressive strength test during the inspection of laboratory equipment by the Materials Division, Concrete Section.

907-804.02.10--Portland Cement Concrete Mix Design. Delete the Notes under Table 3 of Subsection 804.02.10 on pages 850 & 851, and substitute the following:

* Maximum size aggregate shall conform to the concrete mix design for the specified aggregate.
** The replacement limits of Portland cement by weight by other cementitious materials (such as fly ash, GGBFS, metakaolin, silica fume, or others) shall be in accordance with the values in Subsection 907-701.02. Other hydraulic cements may be used in accordance with the specifications listed in Section 701.
*** The slump may be increased up to six (6) inches with an approved mid-range water reducer or up to eight (8) inches with an approved type F or G high range water reducer, in accordance with 907-713.02. Minus slump requirements shall meet those set forth in Table 3 of AASHTO M157 specifications.
**** Entrained air is not required except for concrete exposed to seawater. For concrete exposed to seawater, the total air content shall be 3.0 % to 6.0%. For concrete not exposed to seawater, the total air content shall not exceed 6.0%.
***** Class DS Concrete for drilled shafts shall have an 8±1-inch slump.

Delete the last paragraph of Subsection 804.02.10 on page 851 and substitute the following:

Either Type A, D, F, G or mid-range chemical admixture, shall be used in all classes of concrete. Any combinations of water reducing admixtures shall be approved by the Engineer before their use.

907-804.02.10.1.1--Proportioning on the Basis of Previous Field Experience of Trial Mixtures. Delete the first sentence of the first paragraph of Subsection 804.02.10.1.1 on page 851, and substitute the following:

Where a concrete production facility has a record, based on at least 10 consecutive strength tests from at least 10 different batches within the past 12 months from a mixture not previously used on Department projects, the standard deviation shall be calculated.

907-804.02.10.3--Field Verification of Concrete Mix Design. Delete the third sentence of the third paragraph of Subsection 804.02.10.3 on page 853, and substitute the following:

If the requirements of yield, slump, or total air content are not met within three (3) production days after the first placement, subsequent field verification testing shall not be permitted on department projects, and the mix design shall not be used until the requirements listed above are met

907-804.02.10.4--Adjustments of Mixture Proportions. Delete the paragraph in Subsection 804.02.10.4 on page 854, and substitute the following:

The mixture may be adjusted by the Class III Certified Technician representing the Contractor in accordance with the allowable revisions listed in the Department's Concrete Field Manual, paragraph 5.7. Written notification shall be submitted to the Engineer a minimum of seven (7) days prior to any source or brand of material change, aggregate size change, allowable material type change, or decrease in any cementitious material content. Any adjustments of the concrete mixture design shall necessitate repeat of field verification procedure as described in Subsection 804.02.10.3 and approval by the Engineer.

907-804.02.11--Concrete Batch Plants. Delete the first three paragraphs of Subsection 804.02.11 on page 854, and substitute the following:

The concrete batch plant shall meet the requirements of the National Ready Mixed Concrete Association *Quality Control Manual, Section 3, Plant Certification Checklist* as outlined in the latest edition of the Department's *Concrete Field Manual*. The Contractor shall submit a copy of the approved checklist along with proof of calibration of batching equipment, i.e., scales, water meter, and admixture dispenser, to the Engineer 30 days prior to the production of concrete.

For large volume projects the concrete batch plant shall meet the requirements for an automatic system capable of recording batch weights. It shall also have automatic moisture compensation for the fine aggregate. For small volume projects, the concrete batch plant can be equipped for manual batching with a fine aggregate moisture meter visible to the plant operator.

The concrete batch plant shall have available adequate facilities to cool concrete during hot weather.

Mixer trucks to be used on the project are to be listed in the checklist and shall meet the requirements of the checklist.

907-804.02.12--Contractor's Quality Control. Delete the fourth paragraph of Subsection 804.02.12 on page 854 & 855, and substitute the following:

The Contractor's Quality Control program shall encompass the requirements of AASHTO Designation: M 157 into concrete production and control, equipment requirements, testing, and batch ticket information. The requirement of AASHTO Designation: M 157, Section 11.7 shall

be followed except, on arrival to the job site, a maximum of 1½ gallons per cubic yard is allowed to be added. Water shall not be added at a later time. If the maximum permitted slump is exceeded after the addition of water at the job site, the concrete shall be rejected.

907-804.02.12.3--Documentation. After the second sentence of the second paragraph of Subsection 804.02.12.3 on page 856, add the following:

Batch tickets and gradation data shall be documented in accordance with Department requirements. Batch tickets shall contain all the information in AASHTO Designation: M157, Section 16 including the additional information in Subsection 16.2 with the following exception: the information listed in paragraphs 16.2.7 and 16.2.8 is not required. Batch tickets shall also contain the concrete producer's permanent unique mix number assigned to the concrete mix design.

907-804.02.12.5--Non-Conforming Materials. In Table 4 of Subsection 804.02.12.5 on page 857, delete "/ FM" from the requirements on line B.3.a.

907-804.02.13--Quality Assurance Sampling and Testing. In Table 5 of Subsection 804.02.13 on page 858, delete "and FM" from the requirements on line A.3.

907-804.02.13.1.4--Temperature. Delete the first paragraph of Subsection 804.02.13.1.4 on pages 859 & 860, and substitute the following:

Cold weather concreting shall follow the requirements of Subsection 907-804.03.16.1. Hot weather concreting shall follow the requirements of Subsection 804.03.16.2 with a maximum temperature of 95°F for Class DS concrete or for concrete mixes containing cementitious materials meeting the requirements of Subsection 907-701.02.2 as a replacement of Portland cement. For other concrete mixes, the maximum concrete temperature shall be 90°F. Concrete with a temperature more than the maximum allowable temperature shall be rejected and not used in Department work.

907-804.03--Construction Requirements.

907-804.03.15--Removal of Falsework, Forms, and Housing. Delete the first sentence of the second paragraph of Subsection 804.03.15 on page 871, and substitute the following:

Concrete in the last pour of a continuous superstructure shall have attained a compressive strength of 2,400 psi, as determined by cylinder tests or maturity meter probe, prior to striking any falsework.

Delete the first sentence of the third paragraph of Subsection 804.03.15 on page 871, and substitute the following:

At the Contractor's option and with the approval of the Engineer, the time for removal of forms may be determined by cylinder tests, in accordance with the requirements listed in Table 6, in which case the Contractor shall furnish facilities for testing the cylinders.

Delete the fourth and fifth paragraphs of Subsection 804.03.15 on pages 871 & 872, and substitute the following:

The cylinders shall be cured under conditions which are not more favorable than those existing for the portions of the structure which they represent.

Delete the table in Subsection 804.03.15 on page 872, and substitute the following:

Table 6
Minimum Compressive Strength Requirements for Form Removal

Forms:	
Columns	1000 psi
Side of Beams	1000 psi
Walls not under pressure	1000 psi
Floor Slabs, overhead	2000 psi
Floor Slabs, between beams	2000 psi
Slab Spans	2400 psi
Other Parts	1000 psi
Centering:	
Under Beams	2400 psi
Under Bent Caps	2000 psi
Limitation for Placing Beams on:	
Pile Bents, pile under beam	2000 psi
Frame Bents, two or more columns	2200 psi
Frame Bents, single column	2400 psi

In lieu of using concrete strength cylinders to determine when falsework, forms, and housings can be removed, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Table 7. Falsework, forms, and housings may be removed when maturity meter readings indicate that the required concrete strength is achieved. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO Designation: T 325 and ASTM Designation: C 1074 specifications. Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment.

Table 7
Requirements for use of Maturity Meter Probes

Structure Component	Quantity of Concrete	No. of Probes
Slabs, beams, walls, & miscellaneous items	0 - 30 yd^3	2
	> 30 to 60 yd^3	3
	> 60 to 90 yd^3	4
	> 90 yd^3	5
Footings, Columns & Caps	0 - 13 yd^3	2
	> 13 yd^3	3
Pavement, Pavement Overlays	1200 yd^2	2
Pavement Repairs	Per repair or 900 yd^2 Whichever is smaller	2

907-804.03.16--Cold or Hot Weather Concreting.

907-804.03.16.1--Cold Weather Concreting. After the third paragraph of Subsection 804.03.16.1 on page 873, add the following:

In lieu of the protection and curing of concrete in cold weather, at the option of the Contractor with the approval of the Engineer, when concrete is placed during cold weather and there is a probability of ambient temperatures lower that 40°F, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Table 7. An approved insulating blanketing material shall be used to protect the work when ambient temperatures are less than 40°F and shall remain in place until the required concrete strength in Table 6 is achieved. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO Designation: T 325 and ASTM Designation: C 1074 specifications. Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment.

Rename the Table in Subsection 804.03.16.1 on page 874 from "Table 6" to "Table 8".

907-804.03.19--Finishing Concrete Surfaces.

907-804.03.19.7--Finishing Bridge Floors.

907-804.03.19.7.4--Acceptance Procedure for Bridge Deck Smoothness. After the first sentence of the second paragraph of Subsection 804.03.19.7.4 on page 886, add the following:

Auxiliary lanes, tapers, shoulders and other areas that are not checked with the profilograph, shall meet a 1/8 inch in 10-foot straightedge check made transversely and longitudinally across the deck or slab.

907-804.05--Basis of Payment. Add the "907" prefix to the pay items listed on page 898.

SPECIAL PROVISION NO. 906-3

Training Special Provisions

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," (Attachment 1), and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's equal employment opportunity affirmative action program training shall be provided as follows:

> The Contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under this special provision will be as indicated in the bid schedule of the contract.

In the event that a Contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a

journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the State highway agency and the Federal Highway Administration. The State highway agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A

Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

SPECIAL PROVISION NO. 906-6

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ON-THE-JOB TRAINING PROGRAM

ALTERNATE TRAINING SPECIAL PROVISION

PURPOSE

The purpose of the On-The-Job Training (OJT) Program is to provide training for minority, female and economically disadvantaged individuals in order that they may develop marketable skills and gain journey status in the skilled craft classifications in which they are being trained.

INTRODUCTION

This voluntary OJT Program has been developed through the partnering efforts of the Road Builders of Mississippi, the Federal Highway Administration (FHWA) and the Mississippi Department of Transportation (MDOT).

The OJT Program has been designed for use by participating contractors and subcontractors in meeting their training needs. The objective of the OJT Program is to develop skilled workers in the skilled craft trade areas of highway construction who are sufficiently trained to be productive employees in the highway construction industry work force.

The success of the OJT Program will require that contractors and subcontractors take part in the program and follow uniform procedures in training and in tracking trainee's progress.

FUNDING

MDOT will establish an annual OJT Fund from which, contractors and subcontractors may bill the Department directly for hours worked by trainees. The funding source of this money will be state and federal funds for MDOT's OJT Program.

DISBURSEMENT OF FUNDS

MDOT will pay $3.00 per hour toward the trainee's salary for each hour of training performed by each trainee in an approved training program. Program reimbursements will be made directly to the prime or sub contractor. Requests for payment will be submitted to the Office of Civil Rights for approval.

Contractors must provide a signed invoice providing the following information to be reimbursed.

- Contractor's Name
- Mailing Address
- Trainee Name
- Social Security Number

- Race
- Sex
- Project Number
- Job Classification
- Total Number of Hours Completed

TRAINING PROGRAM APPROVAL

A. To use the OJT Program on highway construction projects, the contractor will notify the Department Office of Civil Rights using the On-the-Job Trainee Schedule Form. The notification must include the following information:

- Trainee Starting Date
- Project number (s) trainee starting on
- Training program (classification) to be used; and
- Number of Training Hours Required

B. If a contractor chooses to use a training program different from those listed in the OJT Program Manual, or desires to train in a different classification, the training program must be submitted in its entirety for approval by the Department and FHWA. The training proposal must include the following:

1. The primary objective of the program: To provide training for minority, female and economically disadvantaged individuals for development to full journey status in the work classifications in which they are being trained.

2. The minimum number of hours and type of training the trainee will receive as it relates to each specific task required to achieve journey status.

3. No less than minimum wage.

4. Trainee certification of completion.

5. Records and reports submitted to the Office of Civil Rights on a monthly basis.

DEPARTMENT RESPONSIBILITY

1. Department project staff will monitor trainees on the project. They will monitor payrolls for payment of correct wage rates and fringe benefits. The Office of Civil Rights will maintain a master list by contractor name, project number, trainee name and trainee social security number to aid project staff in monitoring trainees who work on multiple projects.

2. The Office of Civil Rights may elect to interview trainees periodically during the training period to assess their performance and training program.

CONTRACTOR RESPONSIBILITY

1. Trainees must be identified on payrolls (i.e. dragline trainee).

2. When any trainee completes a program, or is terminated for a reason or reasons other than successful completion, the contractor must include the date of completion or an explanation for the termination and date of termination on the OJT Termination Report.

3. The contractor will assign each trainee to a particular person--either a supervisor or a journeyman/woman who is proficient in the craft the trainee is being trained in, to ensure that timely instructional experience is received by the trainee. This person, cooperating with the appropriate company personnel, will see that proper records and the total intended training hours are completed during the allocated number of hours set up in the classification criteria.

4. The contractor has the prerogative of terminating the training period of the trainee and advancing the trainee to journey status. Approval requests must be submitted to the Office of Civil Rights with an explanation (***refer to 2 above***).

5. Upon notification from the contractor, the Department will issue a skill verification card and certificate of training to the trainee.

6. Trainees may be transferred to state-aid highway construction projects in order to complete the training program. If transfers are made the Office of Civil Rights must be notified on the Monthly Trainee Form. All of the training hours completed by trainees will count toward overall program completion.

7. Program reimbursements will be made directly to the prime or sub contractor.

WAGE RATE

The wage rate for all trainees is the current Minimum Federal Wage Rate, during their OJT training program. Trainees shall be paid full fringe benefit amounts, where applicable. At the completion of the training program, the trainee shall receive the wages of a skilled journey.

RECRUITMENT AND SELECTION PROCEDURES

A. Prerequisites for Trainees

To be qualified for enrollment in the OJT Program, trainees must possess basic physical fitness for the work to be performed, dependability, willingness to learn and ability to follow instructions.

B. Licenses

Truck driver trainees must possess appropriate driver permits or licenses for the operation of Class A, B and C trucks. However, when an instructional permit is used in lieu of a license, the trainee must be accompanied by an operator who:

1. Holds a license corresponding to the vehicle being operated;

2. Has had at least one year of driving experience; and

3. Is occupying the seat next to the driver.

C. Recruitment

1. Notices and posters setting forth the contractor's Equal Employment Opportunity Policy and availability of training programs will be placed in areas readily accessible to employees, applicants for employment and potential employees.

2. The contractor must target minority, female or economically disadvantaged trainees.

3. The contractor will conduct systematic and direct recruitment through public and private employee referral sources. Contractors must submit the trainee's name and completed application form to the Office of Civil Rights for review and approval. Approval must be obtained before the trainee can begin work under the training program.

4. Present employees will be screened for upgrading.

D. Selection

1. The selection and employment of a person by participating contractor shall qualify the person for the OJT Program.

2. Selection will be made without regard to race, color, religion, sex, age or national origin and shall be completely nondiscriminatory.

3. Employment of trainees will be in accordance with the work force requirements of the contractor. Each contractor will hire and train the trainees for uses in their own organization.

4. Written certification of individuals under the category of economically disadvantaged can be provided to the contractor at the time of the interview. This certification must then be provided to the Office of Civil Rights with the other required information as part of the approval process for trainees.

- ***NOTE:*** The OJT Program is to provide training for minority, female and economically disadvantaged individuals in order that they may develop marketable skills and gain journey status in the skilled craft classifications in which they are being trained. However, this program does not exclude trainees that are not members of the above groups.

S E C T I O N 9 0 5 - P R O P O S A L

Date _____

Mississippi Transportation Commission
Jackson, Mississippi

Sirs: The following proposal is made on behalf of _____
_____ of _____
_____
for constructing the following designated project(s) within the time(s) hereinafter specified.

The plans are composed of drawings and blue prints on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

The Specifications are the current Standard Specifications of the Mississippi Department of Transportation approved by the Federal Highway Administration, except where superseded or amended by the plans, Special Provisions and Notice(s) to Bidders attached hereto and made a part thereof.

I (We) certify that I (we) possess a copy of said Standard and Supplemental Specifications.

Evidence of my (our) authority to submit the Proposal is hereby furnished. The proposal is made without collusion on the part of any person, firm or corporation. I (We) certify that I (we) have carefully examined the Plans, the Specifications, including the Special Provisions and Notice(s) to Bidders, herein, and have personally examined the site of the work. On the basis of the Specifications, Special Provisions, Notice(s) to Bidders, and Plans, I (we) propose to furnish all necessary machinery, tools, apparatus and other means of construction and do all the work and furnish all the materials in the manner specified. I (We) understand that the quantities mentioned herein are approximate only and are subject to either increase or decrease, and hereby propose to perform any increased or decreased quantities of work at the unit prices bid, in accordance with the above.

Attached hereto is a certified check, cashier's check or Proposal Guaranty Bond in the amount as required in the Advertisement (or, by law).

INSTRUCTION TO BIDDERS: Alternate and Optional Items on Bid Schedule.

1. Two or more items entered opposite a single unit quantity WITHOUT DEFINITE DESIGNATION AS "ALTERNATE ITEMS" are considered as "OPTIONAL ITEMS". Bidders may or may not indicate on bids the Optional Item proposed to be furnished or performed WITHOUT PREJUDICE IN REGARD TO IRREGULARITY OF BIDS.

2. Items classified on the bid schedule as "ALTERNATE ITEMS" and/or "ALTERNATE TYPES OF CONSTRUCTION" must be preselected and indicated on bids. However, "Alternate Types of Construction" may include Optional Items to be treated as set out in Paragraph 1, above.

3. Optional items not preselected and indicated on the bid schedule MUST be designated in accordance with Subsection 102.06 prior to or at the time of execution of the contract.

4. Optional and Alternate items designated must be used throughout the project.

I (We) further propose to perform all "force account or extra work" that may be required of me (us) on the basis provided in the Specifications and to give such work my (our) personal attention in order to see that it is economically performed.

SECTION 905 -- PROPOSAL (CONTINUED)

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) enclose a certified check, cashier's check or bid bond for **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

Respectfully Submitted,

DATE _____

_____
Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

_____
President Address

_____
Secretary Address

_____
Treasurer Address

The following is my (our) itemized proposal.

Construction necessary to install utilities and upgrade the roadway on Beach Boulevard in Bay St. Louis, known as Federal-Aid Project No. ER-9354-00(002) / 104637301 & State Project No. SP-9354-00(002) / 104637302, in the County of Hancock, State of Mississippi.

I (We) agree to complete the entire project within the specified contract time.

***** SPECIAL NOTICE TO BIDDERS *****
BIDS WILL NOT BE CONSIDERED UNLESS BOTH UNIT PRICES AND ITEM TOTALS ARE ENTERED.
BIDS WILL NOT BE CONSIDERED UNLESS THE BID CERTIFICATION LOCATED AT THE END OF THE BID SHEETS IS SIGNED

*****BID SCHEDULE*****

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Item Amount	
						Dollar	Ct	Dollar	Ct
Roadway Items									
0010	201-A001		1	Lump Sum	Clearing and Grubbing	XXXXXXXX	XXX		
0020	201-B001		4	Acre	Clearing and Grubbing				
0030	202-A001		1	Lump Sum	Removal of Obstructions , Abandoned Carrier Pipe	XXXXXXXX	XXX		
0040	202-B005		12,222	Square Yard	Removal of Asphalt Pavement, All Depths				
0050	202-B035		232	Square Yard	Removal of Concrete Sidewalk				
0060	202-B036		157	Square Yard	Removal of Concrete Slope Paving				
0070	202-B038		466	Linear Feet	Removal of Curb, All Types				
0080	202-B057		8	Each	Removal of Inlets, All Sizes				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0090	202-B064		876	Linear Feet	Removal of Pipe, 8" And Above				
0100	202-B093		1,827	Linear Feet	Removal of Curb & Gutter, All Types				
0110	202-B095		2,161	Square Yard	Removal of Concrete Sidewalks & Driveways, All Depths				
0120	202-B106		130	Linear Feet	Removal of Pipe, All Sizes				
0130	202-B231		11	Each	Removal of Fire Hydrant , Including Backfill				
0140	202-B232		1,350	Linear Feet	Removal of Gravity Sewer Line, All Sizes, All Types				
0150	202-B232		3,200	Linear Feet	Removal of Gravity Sewer Line, All Sizes, All Types , Including Trench Backfill				
0160	202-B233		15	Each	Removal of Gravity Sewer Manhole, All Sizes, All Types , Including Backfill				
0170	202-B234		14	Linear Feet	Removal of Gravity Sewer Service Laterals, All Sizes, All Types				
0180	202-B234		92	Linear Feet	Removal of Gravity Sewer Service Laterals, All Sizes, All Types , Including Trench Backfill				
0190	202-B235		1	Each	Removal of Lift Station , #3				
0200	202-B235		1	Each	Removal of Lift Station , #4				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0210	202-B236		3,900	Linear Feet	Removal of Natural Gas Line, All Sizes, All Types				
0220	202-B237		1,500	Linear Feet	Removal of Sewer Force Main, All Sizes, All Types , Including Trench Backfill				
0230	202-B238		280	Linear Feet	Removal of Water Line, All Sizes, All Types				
0240	202-B238		600	Linear Feet	Removal of Water Line, All Sizes, All Types , Hazardous (Asbestos or Lead)				
0250	202-B238		3,200	Linear Feet	Removal of Water Line, All Sizes, All Types , Hazardous, Including Backfill				
0260	202-B240		38	Each	Removal of Water Line, All Sizes, All Types , Service Lines and Meters				
0270	203-EX006	(E)	30,212	Cubic Yard	Borrow Excavation, AH, LVM, Class B3				
0280	203-G004	(E)	9,653	Cubic Yard	Excess Excavation, LVM, AH				
0290	206-A001	(S)	3,086	Cubic Yard	Structure Excavation				
0300	209-A004		29,910	Square Yard	Geotextile Stabilization, Type V, Non-Woven				
0310	212-A001		13,246	Square Yard	Light Ground Preparation				
0320	212-B001		26,491	Square Yard	Standard Ground Preparation				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0330	213-B001		4	Ton	Combination Fertilizer, 13-13-13				
0340	213-C001		3	Ton	Superphosphate				
0350	214-A002		109	Pounds	Seeding, Bermudagrass				
0360	214-A003		41	Pounds	Seeding, Tall Fescue				
0370	214-A014		55	Pounds	Seeding, Browntop Millet				
0380	214-A015		246	Pounds	Seeding, Oats				
0390	214-A017		68	Pounds	Seeding, Rye Grass				
0400	215-A001		14	Ton	Vegetative Materials for Mulch				
0410	216-A001		17,190	Square Yard	Solid Sodding				
0420	217-A001		332	Square Yard	Ditch Liner				
0430	219-A001		332	Thousand Gallon	Watering	20.	00	6,640.	00
0440	220-A001		3	Acre	Insect Pest Control	30.	00	90.	00

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0450	221-A001	(S)	77	Cubic Yard	Portland Cement Concrete Paved Ditch				
0460	223-A001		1	Acre	Mowing	40.	00	40.	00
0470	234-A001		7,832	Linear Feet	Temporary Silt Fence				
0480	235-A001		864	Bale	Temporary Erosion Checks				
0490	239-A001		4,115	Linear Feet	Temporary Slope Drains				
0500	304-A043	(GY)	292	Cubic Yard	Granular Material, LVM, Class 9, Group C				
0510	304-B026	(GT)	829	Ton	Granular Material, Class 6, Group A				
0520	406-A001		2,921	Square Yard	Cold Milling of Bituminous Pavement, All Depths				
0530	408-A003	(A3)	8,137	Gallon	Asphalt for Prime Coat, Cut-Back MC-70 or Emulsified EA-1				
0540	602-A001	(S)	35,037	Pounds	Reinforcing Steel				
0550	603-CA002	(S)	5,100	Linear Feet	18" Reinforced Concrete Pipe, Class III				
0560	603-CA003	(S)	828	Linear Feet	24" Reinforced Concrete Pipe, Class III				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0570	603-CA004	(S)	588	Linear Feet	30" Reinforced Concrete Pipe, Class III				
0580	603-CA005	(S)	12	Linear Feet	36" Reinforced Concrete Pipe, Class III				
0590	603-CB001	(S)	10	Each	18" Reinforced Concrete End Section				
0600	603-CB002	(S)	2	Each	24" Reinforced Concrete End Section				
0610	603-CB003	(S)	4	Each	30" Reinforced Concrete End Section				
0620	603-CB004	(S)	1	Each	36" Reinforced Concrete End Section				
0630	603-CE001	(S)	40	Linear Feet	22" x 13" Concrete Arch Pipe, Class A III				
0640	603-CE002	(S)	348	Linear Feet	29" x 18" Concrete Arch Pipe, Class A III				
0650	603-SB040	(S)	2	Each	18" Branch Connections, Stub into Box Culvert				
0660	604-A001		7,673	Pounds	Castings				
0670	604-B001		5,158	Pounds	Gratings				
0680	605-AA005	(S)	5,327	Square Yard	Geotextile for Subsurface Drainage, Type V, Non-Woven				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0690	605-W001	(GY)	434	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type A, FM				
0700	605-W002	(GY)	1,611	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type B, FM				
0710	608-A001	(S)	6,319	Square Yard	Concrete Sidewalk, Without Reinforcement				
0720	609-B004	(S)	894	Linear Feet	Concrete Curb, Special Design Header				
0730	609-D006	(S)	12,677	Linear Feet	Combination Concrete Curb and Gutter Type 1 Modified				
0740	614-A002	(S)	876	Square Yard	Concrete Driveway, Without Reinforcement, 6-inch Thickness				
0750	618-A001		1	Lump Sum	Maintenance of Traffic	XXXXXXXX	XXX		
0760	619-A2002		1	Mile	Temporary Traffic Stripe, Continuous Yellow				
0770	619-A2003		1,332	Linear Feet	Temporary Traffic Stripe, Continuous Yellow, Paint				
0780	619-A5001		1,000	Linear Feet	Temporary Traffic Stripe, Detail				
0790	619-A6001		500	Linear Feet	Temporary Traffic Stripe, Legend				
0800	619-A6003		445	Linear Feet	Temporary Traffic Stripe, Legend, Paint				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0810	619-D1001		92	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet				
0820	619-D2001		446	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More				
0830	619-G4001		102	Linear Feet	Barricades, Type III, Single Faced				
0840	619-G4005		60	Linear Feet	Barricades, Type III, Double Faced				
0850	619-G5001		50	Each	Free Standing Plastic Drums				
0860	620-A001		1	Lump Sum	Mobilization	XXXXXXXX	XXX		
0870	627-L001		200	Each	Two-Way Yellow Reflective High Performance Raised Markers				
0880	630-A001		60	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness				
0890	630-A002		34	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness				
0900	630-C003		36	Linear Feet	Steel U-Section Posts, 3.0 lb/ft				
0910	630-C004		300	Linear Feet	Steel U-Section Posts, 3.0 to 3.5 lb/ft				
0920	631-A001		200	Cubic Yard	Flowable Fill				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
0930	668-A018		14,600	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 2"				
0940	699-A001		1	Lump Sum	Roadway Construction Stakes	XXXXXXXX	XXX		
0950	815-A009	(S)	81	Ton	Loose Riprap, Size 300				
0960	815-D001	(S)	52	Cubic Yard	Concrete Slope Paving				
0970	907-213-A001		11	Ton	Agricultural Limestone				
0980	907-225-A001		1	Acre	Grassing				
0990	907-227-A002		1	Acre	Hydroseeding, Temporary Grassing				
1000	907-230-A011		362	Each	Shrub Planting, Dwarf Yaupon Holly				
1010	907-230-A043		373	Each	Shrub Planting, Asian Jasmine				
1020	907-230-A044		269	Each	Shrub Planting, Parsons Juniper				
1030	907-230-B065		14	Each	Tree Planting, Windmill Palm				
1040	907-260-A002		1	Lump Sum	Lift Station , #3	XXXXXXXX	XXX		

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
1050	907-260-A002		1	Lump Sum	Lift Station , #4	XXXXXXXX	XXX		
1060	907-262-A001	(S)	500	Linear Feet	8" PVC Pipe , 0 to 7 Feet Deep				
1070	907-262-A001	(S)	1,800	Linear Feet	8" PVC Pipe , 07 to 10 Feet Deep				
1080	907-262-A001	(S)	600	Linear Feet	8" PVC Pipe , 10 to 13 Feet Deep				
1090	907-262-B001	(S)	960	Linear Feet	8" PVC Pipe, With Joint Restraint , 0 to 7 Feet Deep				
1100	907-262-B001	(S)	2,940	Linear Feet	8" PVC Pipe, With Joint Restraint , 07 to 10 Feet Deep				
1110	907-262-B001	(S)	360	Linear Feet	8" PVC Pipe, With Joint Restraint , 10 to 13 Feet Deep				
1120	907-262-C001		53	Each	Sewer Service Assembly				
1130	907-262-D001	(S)	7	Each	8' Casing Pipe				
1140	907-262-E001		24	Each	Initial Alignment, Deflection and Pressure Test				
1150	907-263-A001	(S)	1,400	Linear Feet	8" Diameter HDPE Force Main Pipe, SDR 17				
1160	907-264-A001	(S)	400	Linear Feet	2" Polyethylene Gas Line				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
1170	907-264-A002	(S)	170	Linear Feet	3" Polyethylene Gas Line				
1180	907-264-A003	(S)	6,600	Linear Feet	4" Polyethylene Gas Line				
1190	907-264-B001		30	Each	4" Isolation Polyethylene Ball Valve				
1200	907-264-C001		54	Each	Natural Gas Service Assembly				
1210	907-264-D001	(S)	2	Each	8' Casing Pipe				
1220	907-264-E001		4	Each	Initial Testing				
1230	907-265-A001	(S)	5,300	Linear Feet	6" PVC Pipe				
1240	907-265-B001	(S)	1,800	Linear Feet	6" PVC Pipe, With Joint Restraint				
1250	907-265-C001		1,950	Pounds	Ductile Iron MJ Fittings				
1260	907-265-D001		30	Each	6" Isolation Gate Valve				
1270	907-265-E001		84	Each	Potable Water Service Assembly				
1280	907-265-F001		11	Each	Fire Hydrant Assembly				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
1290	907-265-G001	(S)	5	Each	8' Casing Pipe				
1300	907-265-H001		4	Each	Initial Testing				
1310	907-265-I001		4	Each	Initial DisinfectionTesting				
1320	907-304-E003	(GY)	1,200	Cubic Yard	Granular Material, LVM, Concrete Sand				
1330	907-304-F001	(GT)	9,534	Ton	Size 825 Crushed Stone Base				
1340	907-403-A011	(BA1)	2,758	Ton	Hot Mix Asphalt, ST, 12.5-mm mixture				
1350	907-403-A012	(BA1)	4,073	Ton	Hot Mix Asphalt, ST, 19-mm mixture				
1360	907-403-A015	(BA1)	2,192	Ton	Hot Mix Asphalt, ST, 9.5-mm mixture				
1370	907-601-B003	(S)	325	Cubic Yard	Class "B" Structural Concrete, Minor Structures				
1380	907-603-A001	(S)	105	Linear Feet	12" Steel Pipe, Jacked or Bored				
1390	907-603-A002	(S)	105	Linear Feet	8" Steel Pipe, Jacked or Bored				
1400	907-603-ALT01	(S)	268	Linear Feet	18" Type A Alternate Pipe				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
1410	907-603-D003	(S)	865	Linear Feet	8" Cured-In-Place Pipe				
1420	907-603-DD001	(S)	800	Linear Feet	Directional Drilling, 4" HDPE Pipe, SDR 11, Force Main				
1430	907-603-DD002	(S)	420	Linear Feet	Directional Drilling, 4" HDPE Pipe, SDR 11, Gas				
1440	907-603-DD003	(S)	420	Linear Feet	Directional Drilling, 6" HDPE Pipe, SDR 11, Water				
1450	907-603-V001		865	Linear Feet	Video Pipe Inspection, All Sizes				
1460	907-603-X001	(S)	5	Each	Point Repair, 8" Clay Sewer				
1470	907-604-C001	(S)	8	Each	Precast Manhole, 48-inch Diameter , 0 to 7 Feet Deep				
1480	907-604-C002	(S)	12	Each	Precast Manhole, 60-inch Diameter , 07 to 10 Feet Deep				
1490	907-604-C002	(S)	3	Each	Precast Manhole, 60-inch Diameter , 10 to 13 Feet Deep				
1500	907-604-V001		23	Each	Initial Manhole Vacuum Test				
1510	907-617-A001		135	Each	Right-of-Way Marker				
1520	907-619-L001		2,000	Linear Feet	Construction Safety Fence				

Line No.	Item Code	Adj Code	Quantity	Units	Description	Unit Price		Bid Amount	
1530	907-626-B003		64	Linear Feet	6" Thermoplastic Traffic Stripe, Continuous White				
1540	907-626-C004		3	Mile	6" Thermoplastic Edge Stripe, Continuous White				
1550	907-626-C008		1,528	Linear Feet	6" Thermoplastic Edge Stripe, Continuous White				
1560	907-626-E003		1,496	Linear Feet	6" Thermoplastic Traffic Stripe, Continuous Yellow				
1570	907-626-E004		3	Mile	6" Thermoplastic Traffic Stripe, Continuous Yellow				
1580	907-626-G001		459	Linear Feet	Thermoplastic Detail Stripe, Blue-ADA				
1590	907-626-G004		3,648	Linear Feet	Thermoplastic Detail Stripe, White				
1600	907-626-H002		5	Each	Thermoplastic Legend, Blue-ADA Handicap Symbol				
1610	907-626-H004		4,461	Linear Feet	Thermoplastic Legend, White				
1620	907-626-H005		129	Square Feet	Thermoplastic Legend, White				

*** BID CERTIFICATION ***

TOTAL BID.....$_____

*** DBE/WBE SECTION ***

Complete item nos. 1, 2, and/or 3 as appropriate. See Notice to Bidders addressing Disadvantaged Business Enterprises in Highway Construction.

1. I/We agree that no less than _____ percent shall be expended with small business concerns owned and controlled by socially and economically disadvantaged individuals (DBE and WBE).

2. Classification of Bidder: Small Business (DBE)_____ Small Business (WBE)_____

3. A joint venture with a Small Business (DBE/WBE): _____

*** SIGNATURE STATEMENT ***

BIDDER ACKNOWLEDGES THAT HE/SHE HAS CHECKED ALL ITEMS IN THIS PROPOSAL FOR ACCURACY AND CERTIFIED THAT THE FIGURES SHOWN THEREIN CONSTITUTE THEIR OFFICIAL BID.

_____

BIDDER'S SIGNATURE

_____

BIDDER'S COMPANY

_____

BIDDER'S FEDERAL TAX ID NUMBER

CONDITIONS FOR COMBINATION BID

If a bidder elects to submit a combined bid for two or more of the contracts listed for this month's letting, the bidder must complete and execute these sheets of the proposal in each of the individual proposals to constitute a combination bid. In addition to this requirement, each individual contract shall be completed, executed and submitted in the usual specified manner.

Failure to execute this Combination Bid Proposal in each of the contracts combined will be just cause for each proposal to be received and evaluated as a separate bid.

* *

COMBINATION BID PROPOSAL

I. This proposal is tendered as one part of a Combination Bid Proposal utilizing option ___* of Subsection 102.11 on the following contracts:

* Option to be shown as either (a), (b), or (c).

	Project No.	County		Project No.	County
1.	______________	______________	6.	______________	______________
2.	______________	______________	7.	______________	______________
3.	______________	______________	8.	______________	______________
4.	______________	______________	9.	______________	______________
5.	______________	______________	10.	______________	______________

A. If option (a) has been selected, then go to II, and sign Combination Bid Proposal.

B. If option (b) has been selected, then complete the following, go to II, and sign Combination Bid Proposal.

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
1. _____	_____ _____	_____ _____	_____ _____	_____ _____	
2. _____	_____ _____	_____ _____	_____ _____	_____ _____	
3. _____	_____ _____	_____ _____	_____ _____	_____ _____	
4. _____	_____ _____	_____ _____	_____ _____	_____ _____	
5. _____	_____ _____	_____ _____	_____ _____	_____ _____	
6. _____	_____ _____	_____ _____	_____ _____	_____ _____	
7. _____	_____ _____	_____ _____	_____ _____	_____ _____	
8. _____	_____ _____	_____ _____	_____ _____	_____ _____	

Project Number	Pay Item Number	Unit	Unit Price Reduction	Total Item Reduction	Total Contract Reduction
9. _____	_____ _____	_____ _____	_____ _____	_____ _____	
10. _____	_____ _____	_____ _____	_____ _____	_____ _____	

C. If option (c) has been selected, then initial and complete one of the following, go to II. and sign Combination Bid Proposal.

_____ I (We) desire to be awarded work not to exceed a total monetary value of $ _____.

_____ I (We) desire to be awarded work not to exceed _____ number of contracts.

II. It is understood that the Mississippi Transportation Commission not only reserves the right to reject any and all proposals, but also the right to award contracts upon the basis of lowest separate bids or combination bids most advantageous to the State.

It is further understood and agreed that the Combination Bid Proposal is for comparison of bids only and that each contract shall operate in every respect as a separate contract in accordance with its proposal and contract documents.

I (We), the undersigned, agree to complete each contract on or before its specified completion date.

SIGNED _____

_____

_____

Certification with regard to the Performance of Previous Contracts or Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports

The Bidder ____, proposed Subcontractor ____, hereby certifies that he has ____, has not ____, participated in a previous contract or subcontract subject to the Equal Opportunity Clause, as required by Executive Orders 10925, 11114, or 11246, and that he has ____, has not ____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

_____
(COMPANY)

BY _____

_____
(TITLE)

DATE: _____

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the Equal Opportunity Clause. Contracts and Subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime Contractors and Subcontractors who have participated in a previous contract or subcontract subject to the Executive orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such Contractors submit a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U. S. Department of Labor.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

CERTIFICATION
(Execute in duplicate)

I, _____,
(Name of person signing certification)

individually, and in my capacity as _____ of
(Title)

_____ do hereby certify under
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that _____

_____, Bidder
(Name of Firm, Partnership, or Corporation)

on Project No. **ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302**,

in **Hancock** County(ies), Mississippi, 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; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in (b) above; and

d) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here "_____" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The bidder further certifies that the certification requirements contained in Section XI of Form FHWA 1273, will be or have been included in all subcontracts, material supply agreements, purchase orders, etc. except those procurement contracts for goods or services that are expected to be less than the Federal procurement small purchase threshold fixed at 10 U.S.C. 2304(g) and 41 U.S.C. 253(g) (currently $25,000) which are excluded from the certification requirements.

The bidder further certifies, to the best of his or her knowledge and belief, that:

1) No 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 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.

2) 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 contract, Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions will be completed and submitted.

The certification contained in (1) and (2) above is a material representation of fact upon which reliance is placed and a prerequisite imposed by Section 1352, Title 31, U.S. Code prior to entering into this contract. Failure to comply shall be subject to a civil penalty of not less than $10,000 and not more than $100,000. The bidder shall include the language of the certification in all subcontracts exceeding $100,000 and all subcontractors shall certify and disclose accordingly.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on _____ _____

Signature

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

CERTIFICATION
(Execute in duplicate)

I, _____,
(Name of person signing certification)

individually, and in my capacity as _____ of
(Title)

_____ do hereby certify under
(Name of Firm, Partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that _____

_____, Bidder
(Name of Firm, Partnership, or Corporation)

on Project No. **ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302**,

in **Hancock** County(ies), Mississippi, 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; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in (b) above; and

d) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Initial here "_____" if exceptions are attached and made a part thereof. Any exceptions shall address to whom it applies, initiating agency and dates of such action.

Note: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The bidder further certifies that the certification requirements contained in Section XI of Form FHWA 1273, will be or have been included in all subcontracts, material supply agreements, purchase orders, etc. except those procurement contracts for goods or services that are expected to be less than the Federal procurement small purchase threshold fixed at 10 U.S.C. 2304(g) and 41 U.S.C. 253(g) (currently $25,000) which are excluded from the certification requirements.

The bidder further certifies, to the best of his or her knowledge and belief, that:

1) No 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 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.

2) 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 contract, Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions will be completed and submitted.

The certification contained in (1) and (2) above is a material representation of fact upon which reliance is placed and a prerequisite imposed by Section 1352, Title 31, U.S. Code prior to entering into this contract. Failure to comply shall be subject to a civil penalty of not less than $10,000 and not more than $100,000. The bidder shall include the language of the certification in all subcontracts exceeding $100,000 and all subcontractors shall certify and disclose accordingly.

All of the foregoing and attachments (when indicated) is true and correct.

Executed on _____ _____

Signature

S E C T I O N 9 0 2

CONTRACT FOR **ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302**

LOCATED IN THE COUNTY(IES) OF **Hancock**

STATE OF MISSISSIPPI,

COUNTY OF HINDS

This contract entered into by and between the Mississippi Transportation Commission on one hand, and the undersigned contractor, on the other witnesseth;

That, in consideration of the payment by the Mississippi Transportation Commission of the prices set out in the proposal hereto attached, to the undersigned contractor, such payment to be made in the manner and at the time of times specified in the specifications and the special provisions, if any, the undersigned contractor hereby agrees to accept the prices stated in the proposal in full compensation for the furnishing of all materials and equipment and the executing of all the work contemplated in this contract.

It is understood and agreed that the advertising according to law, the Advertisement, the instructions to bidders, the proposal for the contract, the specifications, the revisions of the specifications, the special provisions, and also the plans for the work herein contemplated, said plans showing more particularly the details of the work to be done, shall be held to be, and are hereby made a part of this contract by specific reference thereto and with like effect as if each and all of said instruments had been set out fully herein in words and figures.

It is further agreed that for the same consideration the undersigned contractor shall be responsible for all loss or damage arising out of the nature of the work aforesaid; or from the action of the elements and unforeseen obstructions or difficulties which may be encountered in the prosecution of the same and for all risks of every description connected with the work, exceptions being those specifically set out in the contract; and for faithfully completing the whole work in good and workmanlike manner according to the approved Plans, Specifications, Special Provisions, Notice(s) to Bidders and requirements of the Mississippi Department of Transportation.

It is further agreed that the work shall be done under the direct supervision and to the complete satisfaction of the Executive Director of the Mississippi Department of Transportation, or his authorized representatives, and when Federal Funds are involved subject to inspection at all times and approval by the Federal Highway Administration, or its agents as the case may be, or the agents of any other Agency whose funds are involved in accordance with those Acts of the Legislature of the State of Mississippi approved by the Governor and such rules and regulations issued pursuant thereto by the Mississippi Transportation Commission and the authorized Federal Agencies.

The Contractor agrees that all labor as outlined in the Special Provisions may be secured from list furnished by

It is agreed and understood that each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and this contract shall be read and enforced as though it were included herein, and, if through mere mistake or otherwise any such provision is not inserted, then upon the application of either party hereto, the contract shall forthwith be physically amended to make such insertion.

The Contractor agrees that he has read each and every clause of this Contract, and fully understands the meaning of same and that he will comply with all the terms, covenants and agreements therein set forth.

Witness our signatures this the _____ day of _____, _____.

_____
Contractor (s)

By _____ MISSISSIPPI TRANSPORTATION COMMISSION

Title _____ By _____
Signed and sealed in the presence of: Executive Director
(names and addresses of witnesses)

_____ _____
Secretary to the Commission

Award authorized by the Mississippi Transportation Commission in session on the ____ day of _____, _____, Minute Book No. _____, Page No. _____.

Revised 8/06/2003

S E C T I O N 9 0 3

CONTRACT BOND FOR: **ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302**

LOCATED IN THE COUNTY(IES) OF: **Hancock**

STATE OF MISSISSIPPI,

COUNTY OF HINDS

Know all men by these presents: that we, _____

_____ Principal, a _____

residing at _____ in the State of _____

and _____

residing at _____ in the State of _____,

authorized to do business in the State of Mississippi, under the laws thereof, as surety, are held and firmly bound unto the State of Mississippi in the sum of _____

_____

($_____) Dollars, lawful money of the United States of America, to be paid to it for which payment well and truly to be made, we bind ourselves, our heirs, administrators, successors, or assigns jointly and severally by these presents.

Signed and sealed this the _____ day of _____ A.D. _____.

The conditions of this bond are such, that whereas the said _____

_____

principal, has (have) entered into a contract with the Mississippi Transportation Commission, bearing the date of _____ day of _____ A.D. _____ hereto annexed, for the construction of certain projects(s) in the State of Mississippi as mentioned in said contract in accordance with the Contract Documents therefor, on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

Now therefore, if the above bounden _____

_____ in all things shall stand to and abide by and well and truly observe, do keep and perform all and singular the terms, covenants, conditions, guarantees and agreements in said contract, contained on his (their) part to be observed, done, kept and performed and each of them, at the time and in the manner and form and furnish all of the material and equipment specified in said contract in strict accordance with the terms of said contract which said plans, specifications and special provisions are included in and form a part of said contract and shall maintain the said work contemplated until its final completion and acceptance as specified in Subsection 109.11 of the approved specifications, and save harmless said Mississippi Transportation Commission from any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overcharge, fraud, or any other loss or damage whatsoever, on the part of said principal (s), his (their) agents, servants, or employees in the performance of said work or in any manner connected therewith, and shall be liable and responsible in a civil action instituted by the State at the instance of the Mississippi Transportation Commission or any officer of the State authorized in such cases, for double any amount in money or property, the State may lose or be overcharged or otherwise defrauded of, by reason of wrongful or criminal act, if any, of the Contractor(s), his (their) agents or

employees, and shall promptly pay the said agents, servants and employees and all persons furnishing labor, material, equipment or supplies therefor, including premiums incurred, for Surety Bonds, Liability Insurance, and Workmen's Compensation Insurance; with the additional obligation that such Contractor shall promptly make payment of all taxes, licenses, assessments, contributions, damages, any liquidated damages which may arise prior to any termination of said principal's contract, any liquidated damages which may arise after termination of the said principal's contract due to default on the part of said principal, penalties and interest thereon, when and as the same may be due this state, or any county, municipality, board, department, commission or political subdivision: in the course of the performance of said work and in accordance with Sections 31-5-51 et seq. Mississippi Code of 1972, and other State statutes applicable thereto, and shall carry out to the letter and to the satisfaction of the Executive Director of the Mississippi Department of Transportation, all, each and every one of the stipulations, obligations, conditions, covenants and agreements and terms of said contract in accordance with the terms thereof and all of the expense and cost and attorney's fee that may be incurred in the enforcement of the performance of said contract, or in the enforcement of the conditions and obligations of this bond, then this obligation shall be null and void, otherwise to be and remain in full force and virtue.

Witness our signatures and seals this the _____ day of _____ A.D. _____.

_____ _____

(Contractors) Principal Surety

By _____ By _____

(Signature) Attorney in Fact

Address _____

_____

Title _____ _____

(Contractor's Seal) Local Mississippi Representative

_____

(Signature) Local Mississippi Representative

Address _____

_____

_____

(Surety Seal)

OCR-485
REV. 10/02

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
OFFICE OF CIVIL RIGHTS
JACKSON, MISSISSIPPI

LIST OF FIRMS SUBMITTING QUOTES

I/we received quotes from the following firms on Project No: **ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302**

County: **Hancock**

Disadvantaged Business Enterprise (DBE) Regulations as stated in 49 CFR 26.11 require the Mississippi Department of Transportation (MDOT) to create and maintain a comprehensive list of all firms quoting/bidding subcontracts on prime contracts and quoting/bidding subcontracts on federally-funded transportation projects. For every firm, we require the following information:

Firm Name: ______________________
Contact Name/Title: ______________________
Firm Mailing Address ______________________
Phone Number: ______________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________
Contact Name/Title: ______________________
Firm Mailing Address ______________________
Phone Number: ______________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________
Contact Name/Title: ______________________
Firm Mailing Address ______________________
Phone Number: ______________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________
Contact Name/Title: ______________________
Firm Mailing Address ______________________
Phone Number: ______________________
_____ DBE Firm _____ Non-DBE Firm

Firm Name: ______________________
Contact Name/Title: ______________________
Firm Mailing Address ______________________
Phone Number: ______________________
_____ DBE Firm _____ Non-DBE Firm

____
SUBMITTED BY (Signature)

____
FIRM NAME

Submit this form to Contract Administration as a part of your bid package. If this form is not included as part of the bid packet, your bid will be deemed irregular. For further information about this form, call Mississippi DOT's Office of Civil Rights at (601) 359-7466; FAX (601) 576-4504. Please make copies of this form when needed and also add those copies to the bid package.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
Contractor

_____
Address

_____
City, State ZIP

as Principal, hereinafter called the Principal, and _____

a corporation duly organized under the laws of the state of _____

as Surety, hereinafter called the Surety, are held and firmly bound unto **State of Mississippi, Jackson, Mississippi**

As Obligee, hereinafter called Obligee, in the sum of **Five Per Cent (5%) of Amount Bid**

Dollars ($ _____)

for the payment of which sum will and truly to be made, the said Principal and said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for **Construction necessary to install utilities and upgrade the roadway on Beach Boulevard in Bay St. Louis, known as Federal-Aid Project No. ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302, in the County of Hancock, State of Mississippi.**

NOW THEREFORE, the condition of this obligation is such that if the aforesaid Principal shall be awarded the contract, the said Principal will, within the time required, enter into a formal contract and give a good and sufficient bond to secure the performance of the terms and conditions of the contract, then this obligation to be void; otherwise the Principal and Surety will pay unto the Obligee the difference in money between the amount of the bid of the said Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former, but in no event shall liability hereunder exceed the penal sum hereof.

Signed and sealed this _____ day of _____ , 2008

_____
(Principal) (Seal)

_____ By: _____
(Witness) (Title)

_____
(Surety) (Seal)

_____ By: _____
(Witness) (Attorney-in-Fact)

_____
Resident MS Agent

Bid bond must be signed or countersigned by a qualified Mississippi resident agent and the bidder as per Section 102.08 of the Mississippi Standard Specifications for Road and Bridge Construction, 2004 edition.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

HAUL PERMIT FOR BRIDGES

WITH

POSTED WEIGHT LIMITS

DATE: _____

PROJECT: ER-9354-00(002) / 104637301 & SP-9354-00(002) / 104637302

COUNTIES: Hancock

LOCATION: Construction necessary to install utilities and upgrade the roadway on Beach Boulevard in Bay St. Louis

A permit is issued to _____ for transporting loads exceeding the posted limit for any such bridge located on State designated routes within the project termini provided that such transport vehicles comply with all other governing statutory weight limits.

This permit is valid on all State designated routes from the point of origin to the point of delivery for materials and equipment utilized in construction of said project and also valid for sub-contractors and vendors upon written permission of the Contractor. The permit is non-transferable and no other haul permit for posted bridges will be issued to other individuals, vendors, or companies for construction of this project.

A copy of this signed permit shall be carried in all vehicles operating under the authority of this permit and also a copy of the Contractor's written permission when the vehicle is other than Contractor owned.

In accordance with State law, the above named Contractor will be liable for damages directly attributable to vehicles operating under this permit.

_____

EXECUTIVE DIRECTOR