STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL

FEDERAL AID PROJECT

STATE PROJECT NO. 194-02-0061
MERMENTAU RIVER BRIDGE REHABILITATION
ROUTE LA 82
CAMERON PARISH

STATE OF LOUISIANA
EDWIN L. LANTZER
REG. No. 24733
REGISTERED PROFESSIONAL ENGINEER IN MECHANICAL ENGINEERING

Edwin Lantzer
10 FEBRUARY 2009

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NOTICE TO CONTRACTORS (11/08)

Electronic bids and electronic bid bonds for the following project will be downloaded by the Department of Transportation and Development (DOTD) on **Wednesday, March 18, 2009**. **Paper bids and paper bid bonds will not be accepted.** Electronic bids and electronic bid bonds must be submitted through www.bidx.com prior to the electronic bidding deadline. Beginning at 10:00 a.m., all bids will be downloaded and posted online at http://www.dotd.la.gov/cgi-bin/construction.asp. No bids are accepted after 10:00 a.m.

DBE GOAL PROJECT
STATE PROJECT NO. 194-02-0061
FEDERAL AID PROJECT NO. 1204(504)
DESCRIPTION: MERMENTAU RIVER BRIDGE REHABILITATION
ROUTE: LA 82
PARISH: CAMERON
LENGTH: 0.39 mile.
TYPE: STRUCTURAL STEEL, CONCRETE, EARTHWORK, MECHANICAL, ELECTRICAL, PAINTING, OPERATOR HOUSE RENOVATIONS, AND RELATED WORK.
LIMITS: State Project No. 194-02-0061: LOCATED ON ROUTE LA 82 OVER THE MERMENTAU RIVER.
ESTIMATED COST RANGE: $2,500,000 to $5,000,000
PROJECT ENGINEER: MORGAN, BRIAN; 1616 Weekly Road, Sulphur, LA 70663. (337) 526-9375.
PROJECT MANAGER: HINGLE, STEWART.

Bids must be prepared and submitted in accordance with Section 102 of the 2006 Louisiana Standard Specifications for Roads and Bridges as amended by the project specifications, and must include all information required by the proposal.

NOTICE TO CONTRACTORS (CONTINUED)

Paper plans and/or proposals may be obtained in Room 101-A of the DOTD Headquarters Administration Building, 1201 Capitol Access Road in Baton Rouge, or by contacting the DOTD; Email: sharonknight@dotd.la.gov, Phone (225) 379-1111, FAX: (225) 379-1714, or by written requests sent to the Louisiana Department of Transportation and Development, Project Control Section, P. O. Box 94245, Baton Rouge, LA 70804-9245. Proposals will not be issued later than 24 hours prior to the time set for opening bids. All Addenda, Amendments, Letters of Clarification, and Withdrawal Notices will be posted online. **Paper notices will not be distributed.** Construction proposal information may be accessed via the Internet at www.dotd.la.gov. From the LA DOTD home page, select the following options: **Doing Business with DOTD**, then **Construction Letting Information**. Once the **Construction Letting Information** page appears, find the **Notice to Contractors** box. From the drop down menu, select the appropriate letting date and press the "Go To button to open the page, which provides a listing of all projects to be let and a **Construction Proposal Documents** link for each project. All project specific notices are found here. **It will be the responsibility of the bidder to check for updates.** If paper copies of the proposal are desired, the proposal cost is $25.00. If paper copies of the plans are desired, the cost of the plans is $12.00 for complete plans. The purchase price for paper plans and proposals is non-refundable. Additionally, plans and specifications may be seen at the Project Engineer's office or in Room 101-A of the DOTD's Headquarters Administration Building in Baton Rouge. Upon request, the Project Engineer will show the work.

All questions concerning the plans shall be submitted via the Electronic Plans Distribution Center known as **Falcon**. Questions submitted within 96 hours of the bid deadline may not be answered prior to bidding. Falcon may be accessed via the Internet at www.dotd.la.gov. From the home page, select ***Doing Business with DOTD*** from the left-hand menu, then select ***Construction Letting Information*** on the pop-up menu. On the Construction Letting Information page, select the link, ***DOTD's Plan Room***. Login to Falcon (or request an ID if a first-time user). Once logged in, you will have access to view Project Information, submit a question concerning the project, and view the plans. All submitted questions will be forwarded by email to the Project Manager and the Project Engineer for a response.

The U. S. Department of Transportation (DOT) operates a toll free "Hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should call 1-800-424-9071. All information will be treated confidentially and caller anonymity will be respected.

GENERAL BIDDING REQUIREMENTS (08/06): The specifications, contract and bonds governing the construction of the work are the 2006 Edition of the Louisiana Standard Specifications for Roads and Bridges, together with any supplementary specifications and special provisions attached to this proposal.

Bids shall be prepared and submitted in accordance with Section 102 of the Standard Specifications.

The plans herein referred to are the plans approved and marked with the project number, route and Parish, together with all standard or special designs that may be included in such plans. The bidder declares that the only parties interested in this proposal as principals are those named herein; that this proposal is made without collusion or combination of any kind with any other person, firm, association, or corporation, or any member or officer thereof; that careful examination has been made of the site of the proposed work, the plans, Standard Specifications, supplementary specifications and special provisions above mentioned, and the form of contract and payment, performance, and retainage bond; that the bidder agrees, if this proposal is accepted, to provide all necessary machinery, tools, apparatus and other means of construction and will do all work and furnish all material specified in the contract, in the manner and time therein prescribed and in accordance with the requirements therein set forth; and agrees to accept as full compensation therefore, the amount of the summation of the products of the quantities of work and material incorporated in the completed project, as determined by the engineer, multiplied by the respective unit prices herein bid.

It is understood by the bidder that the quantities given in this proposal are a fair approximation of the amount of work to be done and that the sum of the products of the approximate quantities multiplied by the respective unit prices bid shall constitute gross sum bid, which sum shall be used in comparison of bids and awarding of the contract.

The bidder further agrees to perform all extra and force account work that may be required on the basis provided in the specifications.

The bidder further agrees that within 15 calendar days after the contract has been transmitted to him, he will execute the contract and furnish the Department satisfactory surety bonds.

If this proposal is accepted and the bidder fails to execute the contract and furnish bonds as above provided, the proposal guaranty shall become the property of the Department; otherwise, said proposal guaranty will be returned to the bidder; all in accordance with Subsection 103.04.

MANDATORY ELECTRONIC BIDS AND ELECTRONIC BID BONDS SUBMISSION (10/08): This project requires mandatory electronic bidding. All Specifications, whether Standard, Supplemental or Special Provisions, are hereby amended to delete any references regarding paper bids and the ability to submit paper bid forms.

The contractor shall register online to be placed on the Louisiana Department of Transportation and Development (LA DOTD) prospective bidders list or for information only list.

Modifications to proposal documents will be posted on the Department's website at the following URL address: www.dotd.la.gov/cgi-bin/construction.asp.

LA DOTD shall not be responsible if the bidder cannot complete and submit a bid due to failure or incomplete delivery of the files submitted via the internet.

DBE PARTICIPATION IN FEDERAL AID CONSTRUCTION CONTRACTS (02/07): This project is a DBE goal project. In accordance with the Required Contract Provisions for DBE Participation in Federal Aid Construction Contracts elsewhere herein, the DBE goal for approved subcontracting work on this project is **three (3) percent** of the total contract bid price. The contractor shall submit DOTD Form OMF-1A (Request to Sublet) and have it approved by the Department before any subcontract work is done on the project. Only those businesses certified by the Department as Disadvantaged Business Enterprises (DBEs) may be utilized in fulfillment of the DBE goal requirement. Such businesses are those certified by the Louisiana Unified Certification Program on the basis of ownership and control by persons found to be socially and economically disadvantaged in accordance with Section 8(a) of the Small Business Act, as amended and Title 49, Code of Federal Regulations, Part 26 (49 CFR 26).

BUY AMERICA PROVISIONS (03/95): Pursuant to the "Buy America Provisions" of the Surface Transportation Assistance Act (STAA) of 1982 as promulgated by current FHWA regulation 23 CFR 635.410 and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) amendment to (STAA), all steel and iron materials permanently installed on this project shall be manufactured, including application of a coating, in the United States, unless a waiver of these provisions is granted. Coating includes all processes which protect or enhance the value of the material to which the coating is applied. The request for waiver must be presented in writing to the Department by the contractor. Such waiver may be granted if it is determined that:

(1) The application of Buy America Provisions would be inconsistent with the public interest or

(2) Such materials are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.

Minimal use of foreign steel and iron materials will be allowed without waiver provided the cost of these materials does not exceed 0.1 percent of the total contract cost or $2,500, whichever is greater; however, the contractor shall make written request to the DOTD Construction Engineering Administrator for permission to use such foreign materials and shall furnish a listing of the materials, their monetary value, and their origin and place of production.

The burden of proof for the origin and place of production and any request for waiver is the responsibility of the contractor.

Prior to the use of steel and iron materials in the project, the contractor shall furnish Mill Test Reports to the engineer for such steel and iron materials, accompanied by a notarized certification stating that the Mill Test Reports represent the steel and iron materials to be furnished and that such materials were produced and fabricated in the United States.

Pig iron and processed, pelletized, and reduced iron ore are exempt from the Buy America Provisions.

AWARD OF CONTRACT (03/04): Subsection 103.02 is hereby amended to include the following. Within 30 days after award of the contract, and prior to issuance of a Notice to Proceed, the successful bidder will be required to possess a Louisiana contractors license from the Louisiana State Licensing Board for Contractors in each of the following specialty classifications before beginning work under the contract:

a) Painting and Coating (Industrial and Commercial).

b) Lead Based Paint Abatement and Removal.

Also, prior to issuance of a Notice to Proceed, the successful bidder shall submit to the Project Control Section of the Department, a copy of the current certifications from the Society for Protective Coatings (SSPC) in each of the following:

a) SSPC-QP1, "Standard Procedure for Evaluating Qualifications of Painting Contractors (Field Application to Complex Structures)".

b) SSPC-QP2, "Standard Procedure for Evaluation the Qualifications of Painting Contractors to Remove Hazardous Paint".

The above SSPC certifications must be maintained throughout the life of the project.

Failure of the successful bidder to provide satisfactory licenses and certifications will be cause for cancellation of the award and forfeiture of the proposal guaranty which shall become the property of the Department, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next responsible bidder or the work may be readvertised for bids, at the Department's discretion.

MAINTENANCE OF TRAFFIC: Subsection 104.03 of the 2006 Standard Specifications is amended to include the following requirements.

The contractor shall provide for and maintain normal bridge operations, with through, local, and marine traffic at all times except as noted herein or as allowed by the contract documents, and shall conduct his operations in such a manner as to cause the least possible interferences with vehicular and marine traffic in the vicinity of the project. The contractor shall schedule and conduct his work activities to complete traffic-impacting work items such that a full return to normal traffic flows and speed is expediently achieved for typical daytime traffic flow periods.

The contractor will be allowed to totally close the roadway (both lanes) at night from 8:00 p.m. to 6:00 a.m. for the purpose of replacing the main bridge steel grid roadway deck. However, during these total closures, the contractor shall maintain traffic control provisions and a roadway lane ready for passage of emergency vehicles across the bridge, at any time, at a speed of 10 m.p.h. The only exceptions to the requirement to be able to pass emergency vehicles across the bridge are during the times when the center roadway stringer in each of the four central truss panels is being replaced. Each of these four stringer replacement periods shall be limited to one hour in duration.

During the total roadway closures for the deck replacement from 8:00 p.m. to 6:00 a.m., the swing span shall remain in the closed position, and the waterway will be closed to marine traffic, which will require the approval of the U.S. Coast Guard.

Traffic phasing and temporary traffic control for the deck replacement work shall be in accordance with the plans, and LADOTD standards and traffic control details, and the MUTCD. Required temporary precast concrete barriers shall be placed on the bridge at the beginning of each night shift of the total closures, and then removed from the bridge at the end of each night shift to make both roadway lanes ready for public traffic by 6:00a.m. each morning.

The roadway and shoulders shall remain open to traffic as much as possible during nonwork periods as directed by the engineer. During the period that all lanes are open to traffic, the contractor shall neither store material nor park equipment on roadway shoulders.

NAVIGABLE WATERS AND WETLANDS (07/05): Subsection 107.09 of the Standard Specifications is amended to include the following.

The Department has obtained a Coastal Use Permit for all work within the Louisiana Coastal Zone.

Bidders shall comply with the permit requirements. Bidders may obtain a copy of these permits by contacting the Department's Environmental Section at (225) 379-1317.

SUBLETTING OF CONTRACT (01/83): In accordance with Subsection 108.01 of the Standard Specifications, the following items are designated as "Specialty Items":

Item 730-09, Electrical System
Item 731-02, Reflectorized Raised Pavement Markers
Item 732-01, Plastic Pavement Striping (4" Width)
Item 737-03, Painted Traffic Striping (Solid Line)
Item 809-01, Movable Bridge Machinery
Item S-02, Repair Roof of Operator's House
Item S-12, Install New Water Line
Item S-19, Field Paint Existing Bridge Metalwork
Item S-25, Repair and Install New Floor and Wall Tiles Inside Operator's House
Item S-26, Remove and Replace Operator's House Windows

PROSECUTION OF WORK (12/08): Subsection 108.04, Prosecution of Work of the Standard Specifications as amended by the supplemental specifications thereto, is further amended as follows.

108.04 PROSECUTION OF WORK.

Subpart (a), General is deleted and the following substituted.

(a) General: The contractor shall provide sufficient materials, equipment and labor to complete the project in accordance with the plans and specifications within the contract time. If the completed work is behind the approved progress schedule, the contractor shall take immediate steps to restore satisfactory progress and shall not transfer equipment or forces from uncompleted work without prior notice to, and approval of, the engineer. Each item of work shall be prosecuted to completion without delay. If prosecution of the work is discontinued for an extended period of time, the contractor shall give the engineer written notice at least 24 hours before resuming operations. The contractor's progress will be determined monthly at the time of each partial estimate, and will be based on the total amount earned by the contractor as reflected by the partial estimate. If the contractor's progress is behind more than 20 percent behind the elapsed contract time, the contractor may be notified that he is not prosecuting the work in an acceptable manner. If requested by the Department the contractor must meet with and provide the project engineer with an acceptable written plan which details how the contractor will re-gain lost progress and prosecute remaining work. If the contractor's progress is more than 30 percent behind the elapsed contract time, the contractor and the surety will be notified that he is not prosecuting the work in an acceptable manner. The contractor must meet with and provide the project engineer with an acceptable written plan which details how the contractor will re-gain lost progress and prosecute remaining work.

Subpart (b), Disqualification is deleted and the following substituted.

(b) Disqualification: A contractor who is in default in accordance with Subsection 108.09(a)(1) of and progress is deficient by 10 percent or more shall be immediately disqualified. The contractor shall remain disqualified until the project has received a final inspection and has been recommended for final acceptance. Should the surety or the Department take over prosecution of the work, the contractor shall remain disqualified for a period of one year from the completion of the project, unless debarment proceedings are instituted.

During the period of disqualification, the contractor will not be permitted to bid on contracts nor be approved as a subcontractor on contracts. Any bid submitted by the contractor during the period of disqualification will not be considered and will be returned.

PAYMENT ADJUSTMENT (05/06): Section 109, Measurement and Payment of the Standard Specifications is amended to add the following.

This project is not designated for payment adjustments for asphalt cements or fuels.

TEMPORARY TRAFFIC CONTROL (09/08): Section 713 of the 2006 Standard Specifications and the Supplemental Specifications is amended as follows:

Subsection 713.04, Temporary Signs and Barricades, is amended to include the following:

(d) Project Signs: The contractor shall furnish, install, maintain, and upon completion of the project remove "project signs" in accordance with the following requirements.

Project signs shall conform to the requirements of Section 713 and the project sign detail contained elsewhere herein. Shop drawings will be furnished to the successful bidder by contacting the Department's Traffic Services Sign Shop at (225) 935-0121 or (225) 935-0142.

Project signs shall be required at the beginning and end of the project and shall follow sign G-20-1, "Road Work Next 'X' Miles", or as directed by the engineer.

Payment for project signs shall be included in the contract unit price for Item 713-01 Temporary Signs and Barricades.

TEMPORARY PRECAST CONCRETE BARRIERS (08/06): Subsection 713.05 of the standard specifications is amended to include the following.

Temporary precast concrete barriers to be furnished by the Department are stored at 5827 Hwy. 90 East, Lake Charles, LA 70615. The contractor shall load and transport the barrier units to the work site as directed. After completion of the work the barrier units shall be returned to the storage site by the contractor.

PLASTIC PAVEMENT MARKINGS (09/07): Section 732 of the 2006 Standard Specifications and the supplemental specifications thereto, is amended as follows.

Subsection 732.03, Construction Requirements for Plastic Pavement Marking Material.

Heading (a) is amended as follows.

The first paragraph is deleted and the following substituted.

(a) Equipment for Standard (Flat) Thermoplastic Marking Material: The application equipment shall consist of an extrusion die or a ribbon gun that simultaneously deposits and shapes lines at a thickness of 90 mils (2.3 mm) or greater on the pavement surface. When restriping onto existing thermoplastic markings, only a ribbon gun shall be used. Finished markings shall be continuous and uniform in shape, and have clear and sharp dimensions.

Applicators shall be capable of producing various widths of traffic markings. Applicators shall produce sharply defined lines and provide means for cleanly cutting off stripe ends and applying broken lines. The ribbon extrusion die or shaping die shall not be more than 2 inches (50 mm) above the roadway surface during application. A spray application will only be allowed when applying 40 mil (1.0 mm) thermoplastic.

Heading (e) is deleted and the following substituted.

(e) Application of Surface Primer: A single component surface primer will be required prior to placement of preformed plastic markings over an existing painted stripe, over oxidized asphalt, or when striping over existing thermoplastic on portland cement concrete surfaces unless otherwise directed by the engineer. A two component epoxy primer sealer will be required prior to placement of thermoplastic materials on portland cement concrete surfaces unless otherwise directed by the engineer.

SHOP DRAWINGS AND WORKING DRAWINGS (08/06): Subsection 801.03 of the 2006 Standard Specifications is amended to include the following.

The consulting engineers referred to in the plans and specifications are:

Modjeski & Masters, Inc.
Ralph Eppehimer, P.E.
Project Manager
1055 St. Charles Avenue Suite 400
New Orleans, Louisiana 70130

All required shop drawings, working drawings and other submittals shall be furnished to the consulting engineers in accordance with Subsection 801.03(a), and a copy of each transmittal letter shall be sent to the engineer.

ITEM S-01, INSTALL PLATFORMS AT WARNING GATES: This item provides for the fabrication and installation of the new access platforms at the traffic warning gate assemblies as detailed on Sheet 06. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-01, Install Platforms at Warning Gates, per each.

ITEM S-02, REPAIR ROOF OF OPERATOR'S HOUSE: The Contractor shall remove and replace all existing roof decking and flashing as shown on the plan.

GENERAL REQUIREMENTS: The roof of the operator house shall be constructed with a built-up tar roof consisting of Coal Tar Saturated Felts: ASTM D227, Cold Tar Pitch Bitumen ASTM D450, Type I, Primer ASTM D43, Aggregate ASTM D1863, sound hard washed river gravel and Insulation to match existing.

PREPARATION AND VAPOR RETARDED APPLICATION – CONCRETE DECK: The Contractor shall remove the existing exhaust vent and fill the hole in the concrete roof using a

concrete repair grout (Set 45 by Master Builders or approved equal) according to the manufacturer's recommendations. Fill minor surface honeycombs and variations with latex filler. Apply primer at a rate of 1 gal/square and allow to dry. Mop surface with hot bitumen and embed two plies of roof felt, full mop each ply. Lap plies 19 inches, apply bitumen at a rate of 20 lb/square. Install flexible flashing from vapor retardant to air seal material of wall construction; lap and seal to provide continuity of air barrier plane. Glaze top surface of the vapor retarder if insulation is not placed immediately.

MEMBRANE APPLICATION: Equiviscous Temperature (EVY) at point of application: Black Armor in accordance with manufacturer's recommendations and with NRCA. Apply felt smooth, free from air pockets, wrinkles, fish-mouths, or tears. Mop on two additional piles of felt and one ply of felt as base flashing over roofing membrane plies. Secure to curb at 4 inches o.c. Install two plies membrane and bitumen glaze coat for cut-off at end of day's operation. Glaze felts exposed at end of working day. Remove cut-off before resuming roofing. Mop and seal two additional plies of felt around roof penetrations.

SPECIAL FLASHING AND ACCESSORIES: The flashing along the parapet shall be stainless steel and the vent stack shall have a rolled lead flashing. They shall be installed as shown on the plans.

AGGREGATE SURFACING: Apply uniform flood coat of bitumen at rate of 60 lb/square (290kg/100sq. m) and while hot embed a single application of roofing aggregate at rate of 400 lb/square.

SHEET METAL FLASHING AND TRIM: Sheet Metal Flashing shall conform to the criteria of AMACNA Architectural Sheet Metal Manual.

SHEET MATERIAL: Underlayment: ASTM D2178, Non perforated fiberglass roofing felt, #15. Base Sheet shall be GAFGLASS #75 Base Sheet, as manufactured by GAF, or approved equal.

All incidentals needed to complete the roof installation, such as mop, asphalt, insulation tape, etc., shall be per manufacturer's specifications or recommendations and shall be provided by the Contractor.

Roofing Contractor must be approved by the manufacturer of the roofing system and have a minimum of five (5) years experience installing this type of roofing system.

The new roof shall have a 20 year minimum written warranty from the manufacturer to repair or replace any defective material or workmanship without cost to the original owner.

SPECIAL REQUIREMENTS: Remove no more roofing material than can be replace in the same day unless approved provision such as temporary tie-in is made in accordance with manufacturer's specifications and approval. All temporary work must be removed prior to commencing the next day's work.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-02, Repair Roof of Operator's House, per lump sum.

ITEM S-03, REPAIR CONCRETE SPALLS ON UNDERSIDE OF ROADWAY DECK: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to repair vertical and overhead spalls on the elevated bridge. For repairing the spalls, the work consists of chipping out all loose, soft, honeycombed, and disintegrated concrete. Additional concrete shall be removed where necessary to permit the placement of the minimum specified mortar thickness. All work shall be done in such manner as not to damage or shatter the concrete that is to remain. The concrete surfaces shall be thoroughly cleaned of all dirt, dust and other foreign materials by the use of sand, water or air under pressure and such other methods as are necessary to secure satisfactory results. The first concrete spall repair shall be performed with a manufacturer's representative of the repair mortar product present. All spalls shall be inspected and approved by the Engineer for cleanliness prior to the application of the cement-based repair mortar (SikaRepair SHA or approved equal) according to the manufacturer's recommendations.

After the repair mortar has been placed to desired thickness, all high spots shall be cut off with a sharp trowel, or screeded to a true plane as determined by the Engineer. After curing and before final acceptance, all patched areas shall be sounded. All unsound and cracked areas shall be removed and replaced at no cost to the owner.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item, irrespective of depth or thickness of the patch, shall be made under:

Item S-03, Repair Concrete Spalls on Underside of Roadway Deck, per square foot.

ITEM S-04, REPAIR CONCRETE DECK SPALLS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to repair vertical and overhead spalls on the elevated bridge. For repairing the spalls, the work consists of chipping out all loose, soft, honeycombed, and disintegrated concrete. Additional concrete shall be removed where necessary to permit the placement of the minimum specified mortar thickness. All work shall be done in such manner as not to damage or shatter the concrete that is to remain. The concrete surfaces shall be thoroughly cleaned of all dirt, dust and other foreign materials by the use of sand, water or air under pressure and such other methods as are necessary to secure satisfactory results. The first concrete spall repair shall be performed with a manufacturer's representative of the repair mortar product present. All spall repairs shall be inspected and approved by the Engineer for cleanliness prior to the application of the cement-based repair mortar (SikaRepair SHA or approved equal) according to the manufacturer's recommendations.

After the repair mortar has been placed to desired thickness, all high spots shall be cut off with a sharp trowel, or screeded to a true plane as determined by the Engineer. After curing and before final acceptance, all patched areas shall be sounded. All unsound and cracked areas shall be removed and replaced at no cost to the owner.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item, irrespective of depth or thickness of the patch, shall be made under:

Item S-04, Repair Concrete Deck Spalls, per square foot.

ITEM S-05, REPAIR CONCRETE RAILING SUPPORT SPALLS: This item consists of providing all necessary materials, labors, equipment, supplies, and incidentals required to repair pedestals on the elevated bridge. For repairing the handrail post spalls, the work consists of sawing around outer edges of each spall to eliminate feather edging, and chipping out all loose, soft, honeycombed, and disintegrated concrete plus a minimum 1/4 inch depth of sound concrete. Additional concrete shall be removed where necessary to permit the placement of the minimum specified mortar thickness and installing formwork. All work shall be done in such manner as not to damage or shatter the concrete that is to remain. The concrete surfaces shall be thoroughly cleaned of all dirt, dust and other foreign materials by the use of sand, water or air under pressure and such other methods as are necessary to secure satisfactory results. All spalls shall be inspected and approved by the Engineer for cleanliness prior to the application of the concrete repair grout (Set 45 by Master Builders or approved equal) according to the manufacturer's recommendations.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item, irrespective of depth or thickness of the patch, shall be made under:

Item S-05, Repair Concrete Railing Support Spalls, per square foot.

ITEM S-06, REPLACE DAMAGED RAILING CHANNEL: This item consists of providing all necessary materials, labors, equipment, supplies, and incidentals required to remove the damaged railing channel and install a new channel. For replacing the damaged channel, the work includes of grinding off the existing welds that attach the damaged railing channel to the existing 3I7.5 beam. The new 12x20.7x 20' channel shall be shop painted using a three-coat organic zinc system in accordance with Section 811 and 1008 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition, and field welded to the existing 3I7.5 beam.

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing handrail.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-06, Replace Damaged Railing Channel, per linear foot.

ITEM S-07, REMOVE CHANNEL AT THE NORTHWEST BARRIER COLUMN: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove the existing channel. Removing the existing channel includes grinding off the existing welds that attaches the damaged channel to the existing 24WF Stringer, and to the existing traffic barrier column and guide angle plate.

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing stringer and barrier column metalwork.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-07, Remove Channel at the Northwest Barrier Column, per lump sum.

ITEM S-08, REPLACE NUTS AND WASHERS AT NORTHWEST BARRIER COLUMN: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove the existing damaged nuts and washers and rethread the existing anchor bolt. Install a single self-locking nut or double nuts. Nuts and washers shall conform to Section 807 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition.

All repairs shall be completed prior to the required Field Cleaning and Painting of the leveling plate.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-08, Replace Nuts and Washers at Northwest Barrier Column, per lump sum.

ITEM S-09, REPAIR/REPLACE ANCHOR BOLTS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to repair/replace anchor bolts. The Contractor shall weld a new bearing plate to the existing bearing plate and core drill holes in the existing bent cap. Anchor Bolts are to be threaded rods, F1554, Grade 36, Galvanized. Anchor bolts are to be installed using adhesive anchoring epoxy, Red Head Brand, Model G5, ASTM C881-99, Type IV, Grade 3 or approved equal. Follow manufacturer's installation procedures including hole size. Nuts are to be Heavy Hex A563, Grade A, Galvanized and washers are to be F436 Type 1, Galvanized. Nuts are to be tightened to a snug-tight condition.

Anchor bolt repairs shall be completed prior to the required Field Cleaning and Painting of the existing metalwork.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-09, Repair/Replace Anchor Bolts, per each.

ITEM S-10, REPLACE BOLTS IN LATERAL CONNECTION PLATE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to replace bolts in lateral connection plate. All new bolts, nuts and washers shall be galvanized, ASTM A325 w/1 nut and washer required per bolt.

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing metalwork.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-10, Replace Bolts In Lateral Connection Plate, per each.

ITEM S-11, INSTALL PLATFORMS AT BARRIER GATES: This item provides for the fabrication and installation of new access platforms at the traffic barrier gate assemblies as detailed on Sheet 24. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-11, Install Platforms at Barrier Gates, per each.

ITEM S-12, INSTALL NEW WATER LINE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove the existing water line between the service meter near Mermentau River Road and the Operator House and replacing it with a new 3/4" dia. schedule 40 seamless galvanized steel pipe. Underground water piping is to be installed a minimum of 36" below finish grade and piping along the structure shall be installed with a .016" aluminum jacket shield over 1 1/2" of insulation. Removal and installation of three 3/4" hose bibs, a shut-off valve, a backflow preventer and removing the existing flexible water lines inside the operator house shall be included in the bid price for Item S-12 – Replace Water Line to Operator House.

All installation along the bridge structure shall be completed prior to the required Field Cleaning and Painting of the existing metalwork. Prior to the installation of the new water line along the exterior of the operator house all wall cracks shall be repaired and all walls shall be painted a minimum of one foot above and below the new water line location.

WATER PIPE INSTALLATION: All piping shall be installed in a neat workmanlike manner. Each length of pipe and each pipe fitting shall be marked in accordance with the approved standard and specification to which it is manufactured. Piping shall be installed so as eliminate air pockets and permit drainage. Air relief shall be provided at all high points and drains at all low points. Allowances shall be made for expansion and contraction.

All changes in direction shall be made using long radius fittings, except that short quarter bends or elbows may be used where the change is from horizontal to vertical. Where it becomes necessary because of space conditions to use short radius fittings in any other location, the contractor shall obtain the consent of the project engineer before they are installed.

Where pipes extend through roof or outside walls, flashings shall be required for weatherproofing. Roof and wall flashings shall be in strict accordance with the state sanitary code. Where pipes passing through walls, floors, and ceilings are exposed to view in finished areas of the building, the contractor shall provide nickel plated pressed steel split plates which shall cover the opening and fit snugly to the pipe or covering in the unfinished areas, pipe penetrations shall be filled with waterproof caulk and plates that cover the opening and fit snugly to the pipe. The plates shall be painted to match the color of the building.

Water piping - shall be schedule 40 seamless galvanized steel pipe with welded fittings conforming to ASTM A53 and AWWA C200.

All water pipe and fittings shall be NSF approved for potable water service. All water piping underground shall be a minimum of 36" below finished grade unless stated otherwise in the plans. Water lines shall not be buried in the same trench as drain lines.

The water system shall be tested for leaks at 100 psi for a minimum of 4 hours before pouring slabs or before backfilling. Any leaks found shall be repaired by replacing the complete defective section and the system retested until proven free of defects. All testing shall be done in the presence of the project engineer or his inspector.

The entire water piping system shall be thoroughly sterilized with a solution containing 40-50 ppm of available chlorine. The chlorinating material shall be either liquid chlorine or sodium hypochlorite solution. The sterilizing solution shall be allowed to remain in the system

for a period of 6 hours or longer, during which time all valves and faucets shall be opened and closed several times. After sterilization, the solution shall be flushed from the system with clean water until residual chlorine content is not greater than 0.2 ppm.

Underground piping shall be initially backfilled with select soils or sand to 6" above the top of the pipe. Initial backfill shall be placed and tapered in layers.

Refer to Sheet E-19 for water line support information.

WATER PIPE INSULATION: Water piping outside the operator house and above ground shall be insulated as follows:

MATERIAL:

- Cellular Glass insulation of the type manufactured by Pittsburgh Corning - "Foamglas" - or an approved equal.
- $1^1/_2$" thickness
- Aluminum jacket: 0.016" thickness, of the type manufactured by Childers Products, Premetco International, or approved equal.
- Flame spread/Fire developed - less than 25/50.

INSTALLATION:

- Insulation and jacketing shall be installed in strict accordance with the manufacturer's recommendations.
- All piping shall be free of rust, scale, oil, and foreign matter and shall be thoroughly dry before installation of insulation.
- All testing of the piping system shall be completed prior to installation of insulation.
- Seal all joints with joint sealant in accordance with the manufacturer's recommendations.
- ALUMINUM JACKETING:
    - Shall have 2" laps minimum.
    - Laps shall be positioned to shed water.
    - Aluminum jacketing shall be secured with bands and seals as recommended by the Manufacturer to form a vapor barrier.
- VALVES, BENDS, FITTINGS, ETC.: Follow Manufacturers recommendations for insulating around valves, bends, fittings, etc.

HOSE BIBBS: The hose bibs shall be a 3/4 " freeze-proof wall mounted faucet with vacuum breaker. The faucet shall be brass with wheel handle operation; wheel handles shall be metal. Faucet shall have teflon impregnated packing and standard "o" size washer. The vacuum breaker shall be chrome-plated bronze. Attach all hose bibs connections to the walls.

SHUT-OFF VALVE: Water supply shut-off valve shall be rated 150 pounds and shall be a wedge disk gate valve with rising stem. Valve shall be bronze bodied in accordance with ASTM B-62 and shall be the same size as the line on which it is installed.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-12, Install New Water Line, per linear foot.

ITEM S-13, REPLACE SIDEWALK CHECKERED PLATE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove the existing bent sidewalk plate, channel and bolts that attach the existing channel to the bridge members and install a new 1/4" galvanized bent sidewalk checkered plate, 10 x 15.3 channels and associated welding and metalwork and new 7/8" galvanized bolts (ASTM A325 w/1 nut and washer required per bolt).

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing metalwork.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-13, Replace Sidewalk Checkered Plate, per linear foot.

ITEM S-14, REPLACE LADDERS: This item provides for the removal and replacement of access ladders on the Operator House and the swing span of the bridge, shown on Sheets 26-28. The work consists of removing the existing ladders or remnants thereof, and fabricating and installing the new ladders. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-14, Replace Ladders, per each.

ITEM S-15, REPLACE NAVIGATION LIGHT SUPPORT PLATFORM: This item provides for the removal of the existing and installation of the new navigation light support platform as shown on Sheet 29. This work includes the removal of the existing platform and ladder and the fabrication and installation of the replacement platform and ladder. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-15, Replace Navigation Light Support Platform, per lump sum.

ITEM S-16, REPLACE DETERIORATED BOLTS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove and replace existing bolts that connect the existing 3/8" plate to the floor beams as shown on the plan. All new bolts shall be 7/8" dia. galvanized bolts (ASTM A325, W/1 nut and washer required per bolt).

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing metalwork.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-16, Replace Deteriorated Bolts, per each.

ITEM S-17, INSTALL REST PIER FENDER ACCESS PLATFORM: This item provides for the fabrication and installation of the new access platform with ladders at the East Rest Pier (Pier No.11) as detailed on Sheets 31 and 31a. This work consists of fabricating and installing the new platform and ladder metalwork as well as removing the existing operator's house suspended platform access ladder and modifying the existing platform's handrailing to permit construction and provide access from the new ladder. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-17, Install Rest Pier Fender Access Platform, per lump sum.

ITEM S-18, INSTALL WALKWAY GRATING AND HANDRAIL ON TOP OF FENDER SYSTEM: This item provides for the removal of the fender handrail and the installation of a new walkway and handrail as detailed on Sheet 30. The limits of this work, as well as handrail modifications necessary for the required clearance of the swing span appurtenances during operation, shall be verified in the field. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-18, Install Walkway Grating And Handrail On Top Of Fender System, per linear foot.

ITEM S-19, FIELD PAINT EXISTING BRIDGE METALWORK: This item consists of cleaning and painting of all existing steel bridge members, and other metalwork including the complete roadway railing system, rigid traffic barricades and pipe or conduit supports and any other existing metalwork attachments within the limits shown on the contract plans. Cleaning of the surface includes the removal of all existing cracked or loose coatings, corrosion, and any other contaminants and the establishment of the proper anchor profile on all cleaned bare metal surfaces. The item also includes the containing and collecting of the blast or power tool cleaning debris, temporary site storage of collected debris, sampling, testing, transporting, recycling and treatment and disposing of potentially hazardous materials and all other collected debris. All in accordance with the plans, project specifications, these special provisions and in compliance with all applicable federal, state, and local laws, rules, regulations and ordinances.

GENERAL REQUIREMENTS: The Contractor will not be allowed to clean or paint at night. All cleaning and painting shall be performed only during daylight hours. Other operations may be done at night provided all requirements for such work are met.

The Contractor is advised that the existing coating system on the structure has been sampled and tested for lead, chromium, and cadmium and was found to contain lead and chromium at levels above the reporting limit (see the Paint Analysis Report Appendix A of this specification for additional information). As actual conditions across the bridge may vary the Contractor is encouraged to take any additional samples for his own testing or that he feels may

be required to further characterize the existing coatings for the development of his bid and the proper conduct of the work. The Contractor is further warned and advised that the bridge metalwork may not have been blast cleaned in the past and metalwork underlying the existing coating may or may not contain mill scale and may or may not have an anchor profile.

The Contractor will be required to use recyclable steel abrasives should blast cleaning operations be conducted. Blasting waste and dust collector or vacuum system collected waste from cleaning operations shall be taken to a beneficial reuse facility such as a lead smelter as approved by the LADOTD. Previously used and/or recycled steel abrasives from other projects shall not be allowed for use on this project.

LIMITS OF CLEANING AND PAINTING: The limits of cleaning and painting are the Mermentau Bridge Route LA 82 from the west abutment at Station 38+52 to the east abutment at Sta. 49+01. Surfaces requiring cleaning and painting include all metalwork including bearing assemblies, the complete roadway railing system, rigid traffic barricades, steel bridge members, conduit or pipe brackets and any other metalwork attachments. Machinery metalwork and the moveable beam of the traffic barrier are to be cleaned and painted as required under their respective Bid Items.

Unpainted and non-rusted galvanized or aluminum elements of the structure such as unpainted sign supports, new galvanized roadway grating, new galvanized sidewalk plates, drainage pipes, conduits, hydraulic lines or pipes, roadway lights and all non-metallic conduits and cables shall not be cleaned or painted. All items not to be painted shall be covered or protected from cleaning and painting and shall be cleaned of overspray. The coverage and protection measures shall be submitted to and approved by the Engineer. Temporary removal of some attachments may be required to allow for proper cleaning and painting. Where the surfaces requiring cleaning and painting are covered by attachments not to be painted or the attachments interfere with the proper cleaning and painting of the area as determined by the Engineer, the attachments shall be removed to allow for complete cleaning and painting and then re-installed as soon as possible after cleaning, painting, and acceptance at no direct pay. The cleaned and painted areas shall be inspected by the Engineer's representative prior to replacement of the removed attachments.

The structure contains several utility conduits and hydraulic lines that run through cut-outs in the structure or are clamped to the structure. All utility conduits and hydraulic lines shall be temporarily repositioned, supported and protected as necessary to allow for complete cleaning and painting of the required areas including the clamps and the inside of all cut-outs. All clamps and conduits shall be replaced to their original location after cleaning, painting and acceptance of the required coated areas.

Any damage done to the bridge components including electrical conduit, signs and any other attachments shall be repaired or replaced as directed by and to the satisfaction of the Engineer. All electrical repairs shall be performed by a licensed electrician.

SAFETY STANDARDS: All personnel hired for work on this project, including those hired during the course of the work, shall be competent in their respective trades.

All personnel hired for work at the project site shall be examined in accordance with 29 CFR 1926.62(j)(3)(ii)(A)-(F) prior to employment for this project.

It shall be the Contractor's responsibility to comply with all applicable federal, state, and local laws, rules, regulations and ordinances pertaining to (a) Worker Safety and (b)

Environmental Protection including, but not limited to, the following which are presented as illustrative examples:

A. WORKER SAFETY:

- 29 CFR 1910.106, "Flammable And Combustible liquids"
- NFPA 30, "Flammable and Combustible liquids Code"
- 29 CFR 1910, "Occupational Safety and Health Standards", et seq.
- 29 CFR 1926, "Safety and Health Regulations for Construction", et seq.
- 29 CFR 1926.62, "Lead", et seq.
- 40 CFR 117, "Determination of Reportable Quantities for Hazardous substances"
- NIOSH Method 7082 "Lead"
- OSHA Instruction CPL 2-02.58, "1926.62, Lead Exposure in Construction; Interim Final Rule – Inspection and Compliance Procedures"

The Contractor shall submit to the Engineer a written site specific compliance plan for review at least two (2) weeks prior to the pre-construction meeting. The compliance plan shall describe how the following standards will be met:

- Exposure monitoring [29 CFR 1926.62 (d)]
- Methods of compliance [29 CFR 1926.62 (e)]
- Respiratory Protection [29 CFR 1926.62 (f) and 1910.134 (b), (d), (e), (f)]
- Protective work clothing and equipment [29 CFR 1926.62 (g)]
- Housekeeping [29 CFR 1926.62 (h)]
- Hygiene Facilities and Practices [29 CFR 1926.62 (I)]
- Medical Surveillance [29 CFR 1926.62 (j)]
- Medical Removal Protection [29 CFR 1926.62 (k)]
- Employee information and training [29 CFR 1926.62 (l) and 1926.59 and 1926.21]
- Signs [29 CFR 1926.62 (m)]
- Record keeping [29 CFR 1926.62 (n)]
- Applicable sections of 1926.62 Appendices A-D
- Flammable and Combustible Material Storage[29 CFR 1910.106 and NPFA 30]

B. ENVIRONMENTAL PROTECTION:

- 40 CFR 50, "National Primary and Secondary Ambient Air Quality Standards"
- 40 CFR 60, "Standards for Performance for New Stationary Sources," Appendix A, "Test Methods"
- 40 CFR 261, "Identification and Listing of Hazardous Waste"
- 40 CFR 262, "Standards Applicable to Generators of Hazardous Waste"
- 40 CFR 263, "Standards Applicable to Transportation of Hazardous Waste"
- 40 CFR 264, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities"
- 40 CFR 268, "Land Disposal Restrictions"
- EPA SW-846, "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods", U.S. Environmental Protection Agency
- La. R.S. 30:2001, et seq., "Louisiana Environmental Quality Act" and enabling regulations found in Louisiana's "Environmental Regulatory Code: (most recent edition), particularly:
  - LAC 33:IX.101 et seq., "Water Quality Regulations"

- LAC 33:V.101 et seq., "Hazardous Waste and Hazardous Materials"
- LAC 33:III.101 et seq., "Air Quality Regulations"
- La. R.S. 49:214.21 et seq., "State and Local Coastal Resources Management Act of 1978: and enabling regulations found in the "Louisiana Administrative Code"
- LAC 43:I.701, et seq., "Coastal Management"

The Contractor shall be familiar with and have available at the jobsite, the following referenced industry guidelines:

- SSPC Guide 6 (CON), "Guide for Containing Debris Generated During Paint Removal Operations", as published by the Steel Structures Painting Council: The Society of Protective Coatings (SSPC)
- SSPC Guide 7 (DIS), "Guide for Disposal of Lead-Contaminated Surface Preparation Debris", as published by the Steel Structures Painting Council: The Society of Protective Coatings (SSPC)

The Contractor shall submit the name, address and credentials of an EPA recognized AIHA or A2LA accredited lead testing laboratory he intends to use for the testing of wastes generated by the cleaning operation; and the name, address and credentials of a duly licensed waste transporter and waste disposal or recycling facility(s) he intends to use to the Engineer for review prior to commencement of work.

Chain of Custody forms shall be required for all test specimens or samples taken from the project and transported to testing laboratories. Any Chain of Custody forms or Hazardous Waste Manifests shall be submitted to the Engineer for review as generated. Final documentation and applicable results shall be submitted to Engineer as completed.

The Contractor shall make its on-site changing, wash down, and discarded clothing disposal or laundering facilities and all safety training and personal protection equipment available to the Engineer, his representatives, and the Department at no additional cost. The Contractor shall provide immediate access to all work areas to the Engineer, his representatives, and the Department during the project.

The Contractor shall provide exposure assessments, exposure monitoring, equipment, hygiene facilities, and training as required by the Occupational Safety and Health Administration (OSHA) Interim Final Rule on Lead Exposure in Construction, to Department employees, and to employees of the Engineer who are acting as inspectors or project managers on projects where removal of lead based paint is occurring. For the purpose of this Special Provision, all references in the Interim Final Rule to "the Employer," with regard to providing exposure assessments, exposure monitoring, equipment, hygiene facilities, and training shall mean "the Contractor" and all references to employee(s) shall mean the Department's and the Engineers' employees. The Department and the Engineer shall be responsible for requiring their employee(s) to wear equipment and use facilities provided by the Contractor in accordance with the Interim Final Rule.

The Contractor shall provide the employee(s) protective clothing and equipment, change areas, showers, eating facilities, and hand washing facilities as required by the Interim Final Rule. Until the Contractor performs an employee exposure assessment and determines actual employee exposure, the Contractor shall provide to the employee(s) interim respiratory protection, which shall include the respirator, respirator training and fit testing, and a respirator program. The interim respirator protection provided to the

employee(s) shall be based on anticipated exposure levels greater than the Permissible Exposure Limit (PEL) (50 $\Phi g/m^3$), but less than 10 times the PEL (500 $\Phi g/m^3$).

At a minimum, the Contractor shall provide the employee(s) with a half mask air purifying respirator with high efficiency particulate (HEPA) filters, which provides a respiratory protection factor of 10. If, through employee exposure assessment, the Contractor determines that the employee exposure level is greater than 500$\Phi g/m^3$, the appropriate respirator shall be provided. At a minimum, the Contractor shall conduct an employee exposure assessment on one (1) employee designated by the Project Engineer. The initial exposure assessment and any additional exposure assessments shall be conducted, and the results reported, in accordance with the Interim Final Rule.

The results of the employee exposure assessment(s) shall be fully documented. The results of the employee exposure assessment(s) shall be determined and reported in time frames consistent with the Interim Final Rule. Employee exposure assessment results shall be forwarded directly to the Engineer.

The Contractor shall train all employees working on the project as and when designated by the Engineer. The Contractor shall provide the following information at the preconstruction meeting.

1. Name and qualifications of the trainer,
2. Location and time of the training.
3. An outline of the training to be provided.

Each employee shall be provided with a certificate of training by the Contractor. All training classes and manuals shall be presented and printed in language understood by each employee.

The training shall be conducted within Cameron Parish in the State of Louisiana. The training shall occur between the hours of 7:00 a.m. and 5:00 p.m. on Tuesday, Wednesday, or Thursday.

It shall be the Contractor's responsibility to obtain all permits required and to furnish the Engineer with copies of all applications and all issued permits.

PAINT SYSTEM:

A. GENERAL: The contractor shall use the following coating system as manufactured by Wasser High Tech Coatings, Inc. Auburn, WA (800-627-2968). The specified coatings shall be used and no equal products are known to exist. Alternate coatings will not be considered for use.

WASSER HIGH-TECH COATINGS:

Spot Prime Coat:	MC-Miozinc @ 3-5 mils DFT
Full Intermediate Coat:	MC-Miomastic @ 3-5 mils DFT
Full Topcoat:	MC-Ferrox A @ 2-4 mils DFT

The spot prime coat shall be applied at all locations where corrosion has been removed or where all existing coating has been removed exposing bare steel surfaces. The number of coats specified shall be the minimum number of coats applied to provide the required dry film thickness. Coating materials shall not be used until the Engineer has inspected the

materials and each batch of paint has been tested by the DOTD Materials and Testing Section.

B. INFORMATION TO BE PROVIDED: For each type of coating, the Contractor shall provide the manufacturer's application instructions and include the data listed below:

- Name of the company that manufactures the paint
- Surface preparation recommendations
- Primer, intermediate and finish coating pot life at the anticipated application temperatures
- Specific mixing instructions
- Percent volume solids (thinned and non-thinned)
- Minimum and maximum dry film thickness per coat and total system
- Minimum and maximum wet film thickness per coat
- Minimum and maximum curing time between coats, including atmospheric conditions for each
- Thinner recommended and maximum thinning ratios to be used with each coat of paint.
- Clean-up thinner, soaps, degreasers, etc.
- Ventilation requirements
- Allowable atmospheric conditions during which the paint shall be applied including ambient temperature, relative humidity, surface temperature and dew point temperature
- Allowable application methods
- Shelf life
- Product Technical Data Sheets
- Material Safety Data Sheets (MSDS)

C. PRODUCT DELIVERY AND HANDLING: Materials shall be delivered to the job site in their original, undamaged, unopened containers. Each container shall bear the name and address of manufacturer, manufacturer's brand name, trade name or trademark, color batch number, date of manufacture, shelf life and special directions. If the material is dated in code, the key to interpret the code shall be provided to the Engineer. All rejected materials shall be removed from the job site immediately.

Paints shall be stored in an enclosed, ventilated or heated structures at 40°F (4°C) to 100°F (38°C) and shall be protected from weather. Storage facilities shall be power ventilated or heated to insure that inside temperatures do not exceed the minimum and maximum storage temperatures. Coating materials exposed to temperatures beyond the minimum or maximum shall be resubmitted to the material lab for retesting and shall be certified by the manufacturer in writing as undamaged by such exposure and suitable for use. Flammable materials shall not be stored within 40 feet of any existing or temporary building or structure. Should this requirement conflict with any federal, state or local code, the more stringent shall apply. Damaged materials and materials exceeding the shelf life shall be removed from the site. The maximum size of paint containers shall not exceed 5 gallons.

All containers of paint shall remain unopened until required for use. Those containers which have been previously opened shall be used first. The label information shall be legible and shall be checked at the time of use. Paint which has livered, gelled, or otherwise deteriorated during storage shall not be used. The oldest paint of each kind shall be used first. In every case, paint is to be used before its shelf life has expired. In order to use paints which are more than one year old, the manufacturer must certify in writing that the paint is still suitable for use.

D. COLOR: Three (3) sets of each coating color samples (minimum coupon size 3 inches by 6 inches (75 mm by 150 mm)) shall be submitted to the Engineer for approval before delivery of materials. The topcoat color shall match the standard "Louisiana Gray" topcoat color available from the Materials and Testing Section.

After the coating color samples have been approved, and before delivery of materials, one set of color coating samples painted onto an 8-1/2 inches (216 mm) by 11 inches (280 mm) by ¼ inch (6 mm) sheet of steel shall be submitted to the Engineer. The sheet shall be divided into four horizontal strips and painted as follows:

- Prime three strips starting from the bottom
- Paint intermediate coat on the two bottom strips
- Paint topcoat on the bottom strip
- Top strip to remain unpainted with blast profile exposed.

E. COMPATIBILITY: All paint, caulking, filler materials and equipment shall be compatible in use. Finish coats shall be compatible with prime coats; prime coats shall be compatible with the surface to be coated; all tools and equipment shall be compatible with the coating to be applied.

F. OTHER MATERIALS: All other materials, not specifically described but required for a complete and proper installation of painting shall be selected by the Contractor subject to the approval of the Engineer.

G. SPARE SUPPLIES: From every batch of material, the Contractor shall provide one quart container of each color and type of coating. These spare paint supplies shall be submitted to the Engineer.

SURFACE PREPARATION: Cleaning of the surfaces to be painted shall include the removal of all existing cracked or loose coatings, corrosion, and any other contaminants and the establishment of the proper anchor profile on all cleaned bare metal surfaces.

All rusted metal surfaces, shall be cleaned either in accordance with the Commercial Blast Cleaning Standard SSPC SP6/NACE No.3 and shall be vacuum shrouded or fully contained per the requirements of SSPC- Guide 6 Containment Class 1A or by Power Tool Cleaning to Bare Metal per SSPC-SP11.and shall be vacuum shrouded or fully contained per the requirements of SSPC- Guide 6 Containment Class 1P. The visual standard form SSPC-VIS 1, SSPC-SP6 that corresponds to the initial rust condition will be used to judge acceptable steel cleanliness for blasting. Recyclable steel abrasives shall be used on the project and the abrasives shall meet the requirements of SSPC-AB3. All recycled metallic abrasive shall meet the cleanliness requirements of SSPC-AB2. Previously used and/or recycled abrasives from other

projects shall not be allowed. The visual standard form SSPC-VIS 3, Visual Standards for Power and Hand Tool Cleaned Steel that corresponds to the initial rust condition will be used to judge acceptable steel cleanliness for power tool cleaning to bare metal. Vacuum blasting or vacuum shrouded power tools shall contain integral vacuum-equipped shrouding and a brush or rubber sleeve on the shrouding which conforms to the surface to provide for control of dust and debris collection. When vacuum shrouded blast cleaning or vacuum shrouded power tool cleaning is employed, ground covers or free-hanging tarpaulins are required and may provide controls equivalent to Class 1A or 1P containments. All vacuum equipment shall be equipped with HEPA filers to control lead emissions.

All existing painted surfaces with areas of cracked or loose coating shall be removed by use of vacuum shrouded power tools to remove all cracked or loose layers of paint.

All intact painted surfaces to be recoated shall be cleaned by Low- Pressure Water Cleaning (LP WC) in accordance with SSPC- SP12 / NACE No.5 - Surface Preparation and Cleaning of Steel and Other Hard Materials by High- and Ultrahigh-Pressure Water Jetting Prior to Recoating to provide a WJ-4 visible surface condition and an SC-2 non-visible surface condition. Prior to or in conjunction with pressure washing all surfaces to be recoated are to be treated with a liquid soluble salt remover such as Chlor*rid as manufactured by Chlor*rid International Inc. Chandler, AZ 800-422-3217 or approved equal. Salt removal and pressure washing shall be conducted within 8 hours of painting. If more than 8 hours have elapsed the surfaces shall be tested to determine if it meets the requirements of an SC-2 non-visible surface condition, if not the surfaces shall be retreated with salt remover and pressure washed again.

Deposits of oil or grease are known to exist and shall be removed prior to all cleaning operations. Areas of oil and grease on surfaces to be cleaned shall be removed by solvent cleaning per the requirements of SSPC-SP1 using detergents or suitable degreasers or clean petroleum solvents (that do not deposit a thin film) prior to specified cleaning.

Pack rust at connections and at other areas on the structure is to be removed to the satisfaction of the Engineer by using needle guns, power tools, hammers, chisels, or other methods which will not cause damage to the steel prior to or in conjunction with abrasive blasting or power tool cleaning. Scaling hammers may be used to remove heavy scale but heavier type chipping hammers which would excessively scar the metal shall not be used. Should pack rust not be removable by conventional cleaning methods at secondary member connections, as directed by and with the approval of the Engineer, the fasteners shall be removed and the connection disconnected to permit cleaning and removal of the pack rust. Following cleaning and painting the removed fasteners shall be replaced and the connection restored.

Prior to all surface preparation and painting operations, the Contractor shall protect all surfaces not scheduled to be cleaned and painted. Unpainted and non-rusted galvanized or aluminum metallic elements of the structure such as sign supports, utility conduits, roadway lights and any non-metallic conduits and cables shall be covered or protected and will not require cleaning nor painting unless specified and approved by the Engineer.

Surface profiles shall be 1.5 to 3.0 mils (380 to 760 μm) on cleaned rusted areas. Prior to the application of the spot prime coat, the Contractor shall verify the surface profile with X-Coarse Press-O-Film tape in accordance with Method C of ASTM D 4417 "Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel."

All fins, tears, slivers, and burred or sharp edges that are present on any steel member, or that appear during the cleaning operations, shall be removed by grinding and the area re-blasted.

Cleaning and painting shall be scheduled so that dust and spray from the cleaning process will not fall on wet, newly painted surfaces.

All abrasive, dust and paint residue shall be removed from surfaces with a commercial grade HEPA filtered vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If the double blowing method is used, the exposed top surfaces of all structural steel, including flanges, longitudinal stiffeners, splice plates, hangers, etc., shall be vacuumed after the double blowing operations are completed. The steel shall be kept dust free and primed within 8 hours after cleaning. In the event that 8 hours have passed since a cleaned surface has been approved for coating application the area shall be reinspected to assure compliance with the specified surface preparation standards and re-cleaned as necessary. The entire area enclosed within an active containment shall be completely blast cleaned and approved by the Engineer prior to the application of any coating. In the event that touch-up blasting is necessary once painting has begun within a contained area the areas where coating has been applied shall be allowed to dry and the coated area sectioned off and protected from damage from touch-up blasting activities. Should any damage to the applied coating occur, the affected area shall be completely re-cleaned and repainted. The occurrence of rusting after cleaning regardless of the time since it was blasted shall be cause for recleaning to restore the specified level of cleaning. Within the contained area, all blow-down operations must be completed prior to painting. Once painting has commenced, only vacuuming will be allowed. If any dust, as evidenced by simply wiping the surface with a finger, accumulates on a primed surface, all horizontal surfaces shall be vacuumed prior to subsequent coating.

Any scaffolding, staging or support steel above the area to be coated must be vacuumed and cleaned to prevent abrasive or dust from dropping onto the freshly cleaned surface, or later contaminating the freshly painted surface.

Freshly painted surfaces that are contaminated shall be re-cleaned and re-painted. All surfaces to be coated shall be completely free of grit, dirt or any contaminant prior to coating regardless of original contaminant.

The Contractor's Quality Control Inspector is required to confirm, in a written report to the Engineer, compliance with all applicable specifications prior to Quality Assurance Testing. The Engineer or his representative can defer testing and/or acceptance of the work area until such time that all visible flaws and defects are corrected, and compliance is again verified by Contractor's QC Inspector. Once the Contractors' Quality Control Inspector has verified compliance with all applicable specifications and conducted all required testing, the Engineer or his representative will inspect surfaces to be painted prior to coating and will inspect the painting operation. This inspection does not relieve the Contractor of responsibility for proper preparation of the surface or application of the coating to the required dry film thickness. Any scaffolding and or staging shall remain in place in any particular work area until the Engineer or designated representative has accepted the completed work.

ELECTRICAL AND MECHANICAL EQUIPMENT MATERIAL AND INCIDENTALS: Extreme care shall be exercised when working in the vicinity of electrical cables and fixtures and machinery components. Prior to cleaning and/or painting operations in close proximity to the electrical cables, the Contractor may request that the cables be de-energized for the cleaning or painting operation. The disconnection time shall be between the hours of 7:00 a.m. and 3:00 p.m. Disconnections shall be coordinated with LADOTD electricians, who will perform the disconnection, and will require a minimum 3 working days advance notice. Electrical service

will be restored intermittently when required for bridge operations. All machinery components shall be covered and protected from any abrasive or debris generated by cleaning operations but shall remain operational.

The Contractor shall submit a schedule for approval on times of power disconnect. After de-energized but prior to blasting or painting, the cables shall be suitably covered and protected from damage.

The coverage and protection measures for electrical and mechanical equipment shall be submitted to and approved by the Engineer. All costs associated with de-energizing and protection of electrical cables and equipment and machinery will be included in this item.

A lock-out, tag-out protocol shall be employed at the various electrical disconnect switches.

Plastic coated conduit and fittings, open wiring, cables and cords that exist on and around the bridge shall not be sandblasted nor painted and shall be cleaned of over spray. Any wiring and cables or conduit or hydraulic lines or equipment damaged by painting operations shall be replaced in its entirety at the Contractor's expense. All electrical repairs shall be performed by a licensed electrician. All mechanical repairs shall be performed by licensed machinist.

APPLICATION:

A. GENERAL: Coatings application shall be in accordance with the manufacturer's recommendations, SSPC-PA 1 Paint Application Specification No. 1 and these specifications, whichever is more stringent. Coatings shall be applied only to surfaces prepared in accordance with these specifications. Paint systems may be applied by conventional air spray, airless spray equipment or brush in accordance with the manufacturer's recommendations and these specifications.

The finished surface shall be free from dry spray, over spray, runs sags, drips, excessive paint build-up, ridges, waves, laps, streaks, brush marks and variations in color, texture and finish (glossy or dull). The coverage shall be complete and each coat shall be so applied as to produce an even film of uniform thickness, completely coating corners and crevices, and bonded to the underlying surface. When spot repairs are necessary, the edges of the surrounding coating shall be feathered, leaving surfaces prior to painting tapered and free of loose or damaged coating. Care shall be exercised to avoid over spraying or spattering paint on surfaces not to be coated. Damage to surfaces not to be coated shall be repaired by the Contractor at the Contractor's expense.

B. WEATHER LIMITATIONS: The Contractor's coating inspector shall perform necessary tests immediately before blasting and painting and at least every two hours during the painting operation to determine the dew point, temperature, and relative humidity. Readings shall be taken at the same area where the members are being coated. The Contractor's Quality Control Inspector will record all readings on applicable forms and submit daily to the Engineer or his representative.

- TEMPERATURE: Paint shall be applied in accordance with the manufacturer's recommendations and these specifications, whichever is the more stringent. Paint shall not be applied to steel which has a temperature that will cause blistering or porosity, or otherwise will be detrimental to the life of the paint.

Paint shall not be applied unless the surface temperature of the metal is at least 45°F (7°C) and rising, and shall not exceed a steel surface temperature of 100°F (38°C).

- MOISTURE: Paint shall not be applied during rain, snow, fog, or misty conditions, or when the steel surface temperature is less than 5°F or 3°C above the dew point. Paint shall not be applied to wet or damp surfaces.
- HUMIDITY: Where manufacturers have not made a different written recommendation, paints shall not be applied when the relative humidity exceeds 85 percent. During painting, and for a period of at least eight (8) hours after the paint has been applied, the temperature of the surfaces to be painted, the painted surfaces, and the atmosphere in contact shall be maintained within the temperature and humidity limits and 5°F or 3°C above the dew point. Paint, when applied shall be approximately the same temperature as that of the surface on which it is applied. Fans, heaters, ventilators or other equipment shall be used inside enclosed areas where conditions are not within the stated limits. When fresh paint is damaged by the elements, the containment, or other equipment, it shall be replaced by the Contractor at no direct pay.

C. PAINT PROPERTIES, MIXING, AND THINNING: Paints shall be thoroughly stirred, strained and kept at a uniform consistency during application. Coatings shall be mixed in accordance with the manufacturer's instructions, including listed weather tolerances. Where necessary to accommodate the conditions of the surface, temperature, weather and method of application, the paint may be thinned immediately prior to use by the addition of not more than the amount of thinner recommended by the manufacturer. Unless otherwise specified, paint shall not be reduced more than necessary to obtain the proper application characteristics. Thinner shall be only as recommended by the coating manufacturer.

D. METHODS OF PAINT APPLICATION: Paint shall not be applied to a surface until it has been prepared as specified. Paint shall be applied before any surface rusting occurs, or any dust or oil has accumulated. In the event that eight (8) hours have passed since the surface to be coated has been approved for coating application, the area shall be re-inspected to assure compliance with the surface preparation specified. After a coat is dry, missed or damaged spots shall be repaired before succeeding coats are applied.

The manufacturer's recommended minimum and maximum recoat periods shall be strictly observed. Where conditions require recoat after the recommended maximum recoat period, the Contractor shall employ the manufacturer's written recommended remedial procedures. Any coating removed during this process shall be replaced prior to applying additional coats. The Contractor shall protect adjacent surfaces already properly coated.

All coats that are spray applied shall be with nozzles and at pressures recommended by the producer of the coating, so as to attain a uniform appearance and the dry film thickness specified. In areas that are difficult to spray, brushing is required. The Contractor's equipment shall be designed for application of the materials specified. Compressors shall have suitable traps and filters to remove water and oil from the air.

Prior to using compressed air, the Contractor's Coating Inspector shall verify daily the cleanliness using a blotter test in accordance with ASTM D 4285 "Standard Test Method for Indicating Oil or Water in Compressed Air." The Contractor's Coating Inspector will record all test results on applicable forms and submit daily to the Engineer or his representative. Spray equipment shall be equipped with mechanical agitators, working pressure gages, pressure regulators, and spray nozzles of the proper sizes.

No paint shall be applied until the preceding coat is cured to prevent gassing or failure of the coating system.

Members shall be covered as necessary to prevent accumulation of dry spray on painted surfaces. All dry spray shall be removed by sanding, if necessary. In areas of deficient primer thickness, the areas shall be thoroughly cleaned as necessary to remove all dirt, grease, or other contaminates. The areas shall then be wire brushed or sanded, vacuumed, and recoated to the specific thickness. Where protection is provided for coated surfaces, such protection shall be preserved in place until the paint film has properly dried. Items which have been coated shall not be handled, worked on, or otherwise disturbed, until the paint coat is completely dry and hard. All damage to coated surfaces shall be repaired by the Contractor prior to removal of containment.

E. FILM THICKNESS: Coatings shall be applied to provide dry film thicknesses within the range of specified. The Contractor's Coating Inspector is required to confirm and record during all coating application that wet film thickness readings are within the range that will produce dry film thickness within the range specified.

The Contractor shall not apply a successive coat until the preceding coat or coats have been approved by the Engineer.

F. DAMAGED AREAS: Damaged Areas: All scaffolding to be used shall be equipped with rubber rollers or other protection to prevent damage of painted surfaces. Damage to previously applied coats shall be repaired by the Contractor at no direct cost to an acceptable condition prior to application of subsequent coats.

G. PROTECTION OF THE PUBLIC AND WORK: The Contractor shall protect all parts of the work against disfigurement by splatters, splashes and smirches of paint materials. All painted surfaces that are marred or damaged shall be repaired with materials and to a condition equal to that of the coating system specified. The Contractor shall take all precautions necessary to protect the surface from contamination prior to or during the application process. The Contractor shall be responsible for all damage caused by the painting project to persons or property.

QUALITY CONTROL: The Contractor shall provide safe access to the job site for all workers and for the Engineer or his representative at all times while the work is in progress and throughout the life of this contract.

The Contractor shall comply with the safety and application procedures recommended for each paint system by the coating manufacturer.

Quality Control (QC) shall be the responsibility of the painting Contractor. It will be the responsibility of the painting Contractor to provide sufficient coating inspection personnel and documentation to assure full compliance with these specifications to the satisfaction of the

Engineer. At a minimum there shall be one full time employee (either an employee of the painting Contractor or an independent coating inspector) at the site when operations start until completion of the painting of this project.

The Contractor shall provide documentation sufficient to satisfy the Engineer that the coating inspector is knowledgeable and capable of performing quality control duties. This documentation shall consist of at least three (3) years paint inspection experience and certificates showing that inspection training courses have been satisfactorily completed, including National Association of Corrosion Engineers (NACE) Certification (Successfully completed Level 1, Level 2, and Peer Review).

The Contractor Quality Control Inspector shall perform the following tests and record the following information in accordance with the referenced procedures and frequency:

- Relative Humidity and Dew Point Readings before and every 2 hours during painting and cleaning activities.
- Temperature Readings of air, material and steel surfaces before and every 2 hours during painting and cleaning activities.
- Profile Height Measurements.....ASTM D4417. Daily before coating.
- Visual Inspection of cleaned surfaces.....Prior to all coating application.
- Blotter Test Results.....ASTM D4285. Daily prior to cleaning or painting.
- Wet Film Thickness Measurements.....During all coating application for each applicator.
- Wind Speed and Direction.....Daily every 2 hours.

All QC testing during the painting and cleaning operations shall be performed by the NACE certified inspector as described above. Automatic devices may be used for the temperature, humidity, wind speed and direction readings using equipment approved by the Engineer and provided that the readings shall be taken at the same area where the members are being coated.

The painting Contractor shall be totally responsible for quality control regardless of the fact that the Department, the Engineer or their representatives are present. Copies of all required Quality Control testing reports shall be furnished to the Engineer on a daily basis and prior to Quality Assurance (QA) inspections. All inspection for Quality Assurance shall be done by the Engineer or his representative.

Prior to all coating application, surface preparation conditions must first be QC inspected, then QA inspected and approved by the Engineer or his representative

CONTAINMENT:

A. GENERAL: The frequency and proximity of workers, the public and environmentally sensitive receptors to the project site requires a high level of emission control. The design and effective performance of the enclosure or the vacuum shrouding and the air flow and dust filtering equipment required is the responsibility of the Contractor.

The intent of this section is to specify a method to totally contain all spent materials, dust or mists and any other debris generated during the cleaning or subsequent vacuuming of the structure in preparation for overcoating. The method specified is for vacuum shrouding or total containment of the cleaning work area within a negative pressure enclosure.

Attachments made to any bridge member for securing the containment or equipment shall not damage the member and must be approved by the Engineer. No additional holes shall be drilled.

Containments if employed shall be constructed and configured such that once an area has been cleaned and any coating applied this area must be excluded from any future containment area, or portion thereof.

The Contractor shall not be permitted to ventilate a containment or portion thereof through an area that has been previously coated. This is to prevent deposit of dust on the painted surfaces.

Containments if employed shall be constructed and configured such that the swing span of the bridge shall remain operational at all times.

In the event that the National Weather Services issues a tropical storm or hurricane warning for the project area, those components of the containment system that would cause an overstress condition on any bridge member or the span as a whole, or that may become detached, shall be removed immediately from the structure. The items to be removed and the parameters for removal shall be identified on the containment design calculations and drawings. The contractor shall also submit for approval a detailed plan for removal of the necessary items. The plan shall demonstrate the contractor's ability to implement the plan including a description of the time frame, manpower requirements and equipment required to implement the plan. The removal and reinstallation of the containment system due to the high winds or approaching storms shall be at no direct pay and should be included in the bid price for this item. In the event it is necessary to suspend operations and remove containment and scaffolding, the Contractor shall retain a local contact to handle unsafe conditions that may be caused by the storm and stored on-site equipment. The local contact information shall be provided to the Engineer prior to the evacuation.

B. CLASS AND TYPE OF CONTAINMENT: The following containment methodology is from the SSPC - Guide 6. Should blast cleaning within a containment be employed for required cleaning operations the Contractor shall design and utilize a SSPC Class 1A containment system. Should power tool cleaning within a containment be employed for required cleaning operations the Contractor shall design and utilize a SSPC Class 1P containment system. When vacuum shrouded blast cleaning or vacuum shrouded power tool cleaning is employed, ground covers or free-hanging tarpaulins are required and may provide controls equivalent to Class 1A or 1P containments.

The containment enclosures shall have air moving equipment attached capable of creating a negative pressure condition within. This pressure shall be sufficient to prevent any spent material or dust from leaving the enclosure during the cleaning. It shall also be capable of creating sufficient air flow through the enclosure to provide adequate visibility and a safe working environment for the blasting operators. The Contractor shall design the containment and ventilation system to provide a minimum of 60 feet per minute downdraft and 100 feet per minute cross-draft airflow within the containment. These are minimum design requirements and increased ventilation airflow or other engineering measures may be needed to provide a safe working environment. Auxiliary lighting shall be used within the enclosure where necessary to illuminate the active work surface to a minimum of 550 lux. This is required for clear viewing of all cleaning, painting and

inspection operations as directed by the Engineer. All air exhausted from the containment enclosure shall be filtered by means of filtering system or dust collectors. All filters or dust collectors shall be cleaned before bringing to the project site and shall be cleaned before removing from a project site. All dust collector and support equipment (grit recycling) filters must be brought onto the site with new filters. Supporting documentation such as invoices for the new filters shall be provided upon request.

At the completion of the project, all dust collector and support equipment (grit recycling) filters must be removed and transported to the approved smelting company. The filters are not to be landfilled. The Contractor is responsible for the design and effectiveness of this filtering equipment.

No dust discharge shall be allowed from the exhausted air from the filters, dust collectors, vacuum truck, or other support equipment used for pickup of spent materials. The Contractor shall conduct all blasting operations and grit recycling operations under containment and negative pressure conditions. Recycling operations are also subject to the same emission requirements that are required for the blast cleaning containment system. The combination of removal technique and containment system shall have the desired effect of preventing the release of airborne lead containing dust and debris to below the levels required by all local, state and federal regulations and to control the workers' environment within containment as required by OSHA regulations 29 CFR 1926.62. The containment shall control environmental emissions according to the following assessment criteria.

Failure to meet this criterion will result in the suspension of cleaning operations and require significant modification, or redesign of the containment system and/or work practice or removal technique or equipment prior to resuming cleaning operations.

SHOP DRAWINGS:

A. GENERAL: Should the Contractor decide to employ blasting within a containment the Contractor shall submit to the Engineer at least 60 days prior to the commencement of work a Containment Design Plan for examination within the following guidelines.

- All drawings shall be original tracings conforming to Section 801.03 of the standard specifications.
- The containment system shall be shown in plan and elevation views. Details shall include the containment enclosure, all materials, seals, supports, anchorage, scaffolding, air ventilation and filtration systems, anticipated loads on the structure, vertical and horizontal clearances, and the method of attachment to the structure.
- Indicate the maximum permissible debris and wind loads permitted on the containment system and describe its installation and removal parameters and procedures.

- The containment system with all anticipated loading shall be reviewed and stamped by a professional civil engineer registered in the State of Louisiana. The analysis shall ensure that the containment system and the Contractor's equipment shall not cause any overstress conditions to the bridge members nor compromise the structural integrity of the bridge. Calculations shall be submitted to the Engineer for review.

- Permanent attachments or fasteners to the bridge will not be allowed. Welded connections to bridge members are prohibited. No additional holes shall be drilled.
- All components of the containment system shall be clearly identified on the drawings.
- No loads shall be attached to the bridge railing, walkways, or drainage structures without prior written consent of the Engineer.
- The Contractor shall submit six copies of the drawings for examination.

B. EXAMINATION: Examination of these working or shop drawings by the Engineer does not relieve the Contractor of his responsibility for obtaining the degree of containment and collection stated herein. Said examination is for general review only and confirmation that the loads placed on any member are within allowable stresses, to evaluate the general loads on the structure, and to establish the containment removal parameters. It specifically is not an approval for the structural integrity of the scaffolding system. The structural integrity of the scaffolding is solely the responsibility of the Contractor and the manufacturer of the scaffolding materials. The Contractor shall be fully responsible for safety measures and the scaffolding work. The Contractor shall properly maintain his containment system during work and shall not deviate from the working or shop drawings without prior submittal and examination of the changes by the Engineer.

ENVIRONMENTAL MONITORING:

METHODS FOR ASSESSING QUALITY OF EMISSIONS: The Contractor is advised that the Department may engage an independent third party to conduct environmental monitoring, including before and after soil sampling for lead and other contaminates, TSP Lead Levels, and Visual Assessment of Emissions. This monitoring may be continuous, however, the Engineer shall have the option of suspending or conducting only random or periodic monitoring if compliance with the acceptance criteria set by this specification is demonstrated.

The Contractor is advised that he should not assume he is in compliance with any or all environmental laws or regulations based on satisfactory results of the monitoring conducted by the Department or its representatives. This monitoring is being conducted only to aid in determining non-compliance with the contract specification containment requirements and to trigger the need for containment or work practice modification.

The Contractor shall be responsible for conducting any and all monitoring and assessments he deems necessary to assure compliance with all applicable environmental laws and regulations at his own expense.

A. VISIBLE EMISSION ASSESSMENT: The Contractor shall prohibit all cumulative visible emissions greater in duration than 5 percent of the work day. A work day shall be defined for purposes of visual emission assessment as an eight-hour day. This amounts to a cumulative emission duration limit of 24 minutes per workday. Any emissions occurring in any one hour of any work day that cumulatively exceeds 3 minutes shall be cause for immediate suspension of work and modification or adjustment of the containment system to eliminate the source of emissions prior to resuming cleaning operations.

The visual assessment of emissions will be used to indicate the need for immediate changes in containment or work practice. This visual assessment will be used as a supplement to EPA Ambient Air Monitoring for TSP – Lead. In the event of conflict between the visual assessment and the instrument monitoring the data generated from the instrument monitoring will prevail. The visual assessment procedure shall be based on 40 CFR 50, Appendix A, Method 22. Visual assessment shall be conducted by an independent third party environmental testing firm under separate contract with the owner.

B. INSTRUMENT MONITORING FOR TSP LEAD: The Contractor shall conduct his paint removal and cleaning operations such that emissions of lead shall not be in excess of 1.5 $\Phi g/m^3$ over a 24-hour period. Monitoring for this level shall be accomplished using high volume TSP (total suspended particulate) air samplers in accordance with 40 CFR 50.

Emissions in excess of 1.5 $\Phi g/m^3$ in any 24-hour period shall be cause for shut down of the project until corrections are made to the containment or work procedures are modified to comply with this level of emissions.

Seven (7) days of baseline monitoring prior to project start-up will be undertaken to determine pre-existing conditions.

DEBRIS ACCUMULATION AND PROJECT HOUSE KEEPING: Any discharge, spilling, leaking, pumping, pouring, emitting, or dumping of any abrasive blast media (spent or unspent), paint chips, dirt, debris, lead contaminated materials, fuel, oil, paints, or solvents that are generated as a result of any of the Contractor activities that result in any accumulation within the project limits, temporary waste storage site, or Contractor's equipment and materials storage yard shall be cleaned up immediately. Failure to immediately clean up any accumulations will result in immediate suspension of all work on the project by the Engineer. Also if the Engineer determines that the Contractor is not performing the clean up in a timely manner with adequate equipment and personnel all work will be suspended on the project. The source of the emission, spill, etc. shall be determined and corrective measures shall be taken to prevent any further reoccurrences. All accumulations shall be cleaned up by vacuuming or other appropriate methods and the emitted or spilled materials shall be contained and stored to the Engineer's satisfaction.

WASTE DISPOSAL: Disposal specifications described below are referenced to the SSPC-Guide 7 (DIS). Debris generated by the Contractor's cleaning operation, including abrasive blast residue, spent blast mediums, rust, mill scale, paint particles and dust shall be removed from the work area at the end of each work day.

These wastes shall be collected in leak-proof containers which shall be clearly marked of the hazards of its contents, tare weight of the container, and origin and date of the material collection with weather resistant labels. Transfer of this material from the work area to the containers and the storage site for the containers shall be such that no pollution of the environment will occur and workers are fully protected. The containers shall be transported to a temporary storage site in accordance with 40 CFR Part 263: "LAC 33:V." The Contractor will be responsible for obtaining the temporary storage site at no additional charge to the Department.

This site shall be secure, providing protection from migration of the waste into the environment and from vandalism and public access. Warning signs shall be prominently displayed around the perimeter of the site. The wastes may remain at the temporary storage site no longer than ninety (90) calendar days.

Recyclable steel abrasives shall be employed for use if blast cleaning is employed as the cleaning method. All blasting waste and dust collector or vacuum shrouded power tool equipment generated waste shall be handled as a hazardous waste. These wastes shall be taken to a beneficial reuse facility such as a lead smelter. The reclaiming facility shall have a Resource Conservation and Recovery Act (RCRA) Part B permit. The facility shall provide the Department with certification that the lead was reclaimed and that the waste has been recycled and no longer exists. All other waste streams shall be stored in separate containers. These waste streams shall be sampled and tested to determine their classification and shall be properly disposed of based on that classification. Steel additives to the blasting waste and the dust collector waste will not be allowed.

All waste shall be presumed to be hazardous until it is clearly demonstrated by appropriate sampling and testing to be non-hazardous. All hazardous or non–hazardous wastes shall be handled and stored as a hazardous waste.

Sampling of the wastes generated shall be in accordance with 40 CFR Part 261: "LAC 33:V." The sampling and testing laboratory designated by the Contractor and approved by the Engineer shall prepare a sampling plan in accordance with the Environmental Protection Agency's Manual SW 846.

The Engineer or his representative shall be present during the sampling of waste. The Engineer shall document that the samples are representative of wastes contained at the temporary storage site. The samples shall be analyzed in accordance with the best procedures and quality assurance requirements of 40 CFR Part 268: "LAC 33:V".

Wastes found to be hazardous are subject to the provisions of the RCRA. Transportation of hazardous wastes for treatment and disposal shall be completely manifested in accordance with 40 CFR Part 262: "LAC 33:V". A manifest will be required for transport of both hazardous and non-hazardous waste. The manifest shall be returned to the Engineer.

SPECIAL STENCILING: The date (month and year) of painting and type of paint system used shall be stenciled at two (2) locations determined by the Engineer on all structures in block letters 2-1/2 inches (63 mm) high. Existing panel points, bent nos., etc. shall be stenciled at their existing locations on the structure matching existing number and or letter size. The paint used shall form a contrast with the background and shall be compatible with the paint system used.

PAYMENT: Any damage to the structure or surrounding area, including soil contamination, resulting from the Contractor performing any of the above prescribed work shall be repaired, as directed by the Engineer, by the Contractor at no additional cost to the Department.

Payment for cleaning and painting of all structural metalwork and other attachments described herein; transportation, treatment, and disposal of all generated waste materials; and all equipment, labor, tools, sampling, testing, materials, temporary site storage, incidentals, and the performance of all work necessary to complete this item will be made under:

Item S-19, Field Paint Existing Bridge Metalwork, per lump sum.

See Appendix A for Existing Paint Analysis Report.

ITEM S-20, REPLACE ANCHOR BOLT NUTS AND WASHERS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove and replace the existing damaged nuts and washers and rethread the existing anchor bolts. Installation of new nuts and washers shall conform to Section 807 of the Louisiana Standard Specifications for Roads and Bridges, 2006 Edition.

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing metalwork.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-20, Replace Anchor Bolt Nuts and Washers, per each.

ITEM S-21, REPLACE OPERATOR HOUSE DOORS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove and replace the existing exterior door and frame of the operator's house, and remove and replace the existing interior bathroom door and frame of the operator's house, including new threshold plates. The contractor shall be responsible for all refitting and adjusting of the door and steel door frame due to shrinkage, settlement or other cause for one (1) year after final acceptance of the building.

EXTERIOR STEEL DOOR AND STEEL FRAME: The Contractor shall supply and install a new exterior steel door and frame on the operator's house as shown on the plans and in accordance with this specification. Installation procedures and fabrication tolerances shall be as recommended by the steel door institute standards 111A and 117 and by the manufacturer's recommendations. Hardware for the steel door shall be addressed under "Door Hardware" in these specifications. The contractor shall make available to the project engineer the appropriate portions of all standards referenced herein.

- Steel Door: Shall be hollow metal, 1 ¾" thick, insulated, and of extra heavy-duty grade III flush construction. Size shall be as scheduled on the plans. Steel shall be stretcher level standard hot dipped galvanized in accordance with ASTM A653 and A924. All surfaces are to be thoroughly cleaned and chemically prepared for the acceptance of a factory applied prime coat of paint.

  The door shall be prepared to receive mortise and concealed finish hardware, including cutouts, reinforcing, drilling, and tapping in accordance with the required hardware and templates provided by hardware suppliers. Drilling and/or tapping for surface applied finish hardware may be done at the site.
- Steel Door Insulation: Door shall be completely filled with suitable sound deadening and self-extinguishing insulating polyurethane core material.
- Steel Door Panels: Shall be embossed, 16 gage panels with 14 gage spot welded channel end closures. Steel doors shall be reinforced for application of hardware and closures. Reinforcing shall be 10 gage galvanized steel for hinges, 14 gage for closures, and 16 gage elsewhere.
- Glazing: Exterior steel door shall have a minimum 2'-6" double safety glass window. It shall be wind rated for the area and certified by the AAMA. Glazing shall have non-removable stops on the outside and removable beads on the inside. Glazing shall be minimum 20-gage.

- Steel Door Frame: Shall be manufactured of 16 gauge galvanized steel conforming to ASTM designations A653 and A924. Unit type welded construction shall be used throughout with corners mitered, welded, and, ground smooth on the outside. Removable steel spreaders are to be welded to the bottom of the frame anchors of 18 gage-galvanized steel shall be provided for installation. There shall be a minimum of 6 wall anchors and 2 floor anchors per frame.
- Paint: Steel door and frame shall be supplied with a factory applied rust inhibiting primer, either baked on or air-dried, and suitable as a base for the field applied finish coats.

  Door and frame shall have two (2) field applied finish coats. Finish coats shall be the same as the mechanical equipment paint system. All preparation and application of finish coats shall be in strict accordance with the manufacturer's recommendations. Paint thinning shall not be allowed. The manufacturer's color chart shall be submitted to the Bridge Design Engineer for color selection.

INTERIOR WOOD DOOR AND STEEL FRAME: The contractor shall provide and install a new wood door and steel door frame in the entrance to the bathroom of the operator's house as shown on the plans and as specified herein. Door shall bear the WDMA seal of approval and the I.S.1-58 stamp. Hardware for the door shall be addressed under "Door Hardware" in these specifications. The contractor shall make available to the project engineer the appropriate portions of all standards referenced herein.

- Wood Door: Shall be premium grade, flush, engineered composite hardwood, solid core, conforming to U.S. commercial standard CS171. Size shall be as scheduled on the plans. Warp tolerances, adhesives and bonds shall be in accordance with WDMA I.S.-1A. Adhesives shall be non-staining Type I for interior doors. Face skins shall be book matched of premium grade selected plain sliced hardwood. Frame components shall be bonded to the core. Components shall be assembled to meet or exceed 20-minute fire door specification for Ul10B or UL10C fire test requirements.

  Both faces of the assembly shall be uniformly sanded prior to application of the door facets. The door shall be installed in strict accordance with the manufacturer's installation procedures, a copy of which shall be given to the project engineer prior to installation. The door shall come complete with a lifetime warranty of the original installation. Copies of these shall be provided to the bridge design engineer.
- Steel Door Frame: The interior steel door frame shall be the same as for the exterior steel door frame above.
- Paint: The contractor shall provide and apply paint as described herein. All preparation of surfaces and application of paint shall be in strict accordance with the manufacturer's recommendations. Paint thinning shall not be allowed.

  Interior wood door shall be painted with the following:
  - One (1) coat of acrylic, commercial grade, wood primer.
  - Two (2) finish coats of 100% acrylic, commercial grade, eggshell, interior paint.

Steel frame shall be painted with the following:

- Steel frame shall be supplied with a factory applied rust inhibiting primer, either baked on or air-dried, and suitable as a base for the field applied finish coats.
- Two (2) finish coats of 100% acrylic, commercial grade, eggshell, interior paint.

The Contractor shall submit the paint system to the Bridge Design Engineer for approval. Once approved, the manufacturer's color chart shall be submitted to the Bridge Design Engineer for color selection.

DOOR HARDWARE: The items of hardware described shall be considered as standard unless otherwise specifically mentioned. All hardware used throughout the work shall be new, and equal in size, weight, material and workmanship. Items not specifically mentioned, but necessary for the completion of the work shall match the quality and finish of the items that are herein described. All door hardware throughout shall be stainless steel with satin finish. Sprayed aluminum butts will not be acceptable.

The contractor shall submit a complete schedule of hardware indicating thereon all hands of doors, keying information, finishes, templates and any other pertinent data necessary for the convenience of the engineer.

The contractor shall furnish 8 keys for the door. All new locks shall be keyed alike.

All items of hardware to be fastened to the metal or pre-finished door and frame shall be furnished to template. The contractor shall furnish a template and/or sample of approved hardware to the respective door and frame supplier. A list of all necessary templates shall be included in the hardware schedule.

The contractor shall provide hardware materials and equipment as specified below:

- Door Hinges: Shall be .134" stainless steel on all doors, 4" wide by 4-1/2" long. All doors shall have 3 hinges per leaf.
- Door Mutes (Exterior Door Only): Shall be provided for exterior metal door frame.
- Door Stops: Shall be provided for both doors.
- Door Closer (Exterior Door Only): Shall be provide and shall have a cast iron case with a non-ferrous cover.
- Latch Sets/Lock Sets with Deadbolt: Shall be as scheduled on the plans and as described herein. Latch sets shall be stainless steel and shall be certified under ANSI A156.2 Series 4000 for Grade 2. Deadbolt on exterior door only.
- Threshold, Weather Stripping, Door Bottom and Drip Cap (Exterior Door Only): Shall be provided on the new exterior door.

CAULKING: The Contractor shall apply all caulk in strict accordance with the manufacturer's recommendations including all surface preparation work.

- Interior Caulk: The contractor shall caulk all inside joints at the perimeter of all door frames, window frames, baseboards, molding, and any other joints on the inside of the operator's house prior to painting. Caulk shall be neatly applied to provide a smooth, seamless seal without excess drips or overlap.

Interior caulk shall be latex, paintable, mold and mildew resistant, watertight, white in color, and have a 50 year durability guarantee. "Dap, Dynaflex 230", or approved equal.

Sink and Bathroom Countertop Caulk: The contractor shall apply caulk to the edges of all sinks and bathroom countertops inside the operator's house. Caulk shall be neatly applied to provide a smooth, seamless seal without excess drips or overlap.

Caulk shall be applied after painting is complete, and the paint has thoroughly dried.

Caulk shall be 100% Silicone, mold and mildew resistant, watertight, white in color, and have a lifetime guarantee. "G.E. Silicone II Kitchen and Bath", or approved equal.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-21, Replace Operator House Doors, per each.

ITEM S-22, REPLACE OPERATOR HOUSE WINDOW BLINDS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to install new interior venetian blinds.

VENETIAN BLINDS: Venetian blinds shall have 1" wide 6 gauge aluminum slats, vinyl plastic tape with anchors, braided nylon polyester cords, normal light control, installation brackets and standard tilt and lift control. The contractor shall furnish and install venetian blinds for all windows in the operator's house unless otherwise shown on the plans. Venetian blinds shall be sized to fit between the steel columns. The blinds shall come complete with a limited lifetime warranty.

The Contractor shall submit the manufacturer's color chart to the Bridge Design Engineer for color selection. The Contractor shall field verify the size of all windows before ordering new venetian blinds.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-22, Replace Operator House Window Blinds, per each.

ITEM S-23, REPAIR EXTERIOR WALL CRACKS AND PAINT EXTERIOR WALLS OF OPERATOR'S HOUSE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to repair cracks, remove the existing wingwalls and paint the outside walls of the operator house. For repairing the cracks, the work consists of chipping out all cracks, loose, soft, and disintegrated concrete to a sound base. Additional concrete shall be removed where necessary to permit the placement of the minimum specified mortar thickness. All work shall be done in such manner as not to damage or shatter the concrete that is to remain. The concrete surfaces shall be thoroughly cleaned of all dirt, dust and other foreign materials by the use of water or air under pressure and such other methods as are necessary to secure satisfactory results and repairing the cracks. All spalls shall be inspected and

approved by the Engineer for cleanliness prior to making repairs with a cement-based repair mortar (SikaRepair SHA or approved equal) according to the manufacturer's recommendations.

After the repair mortar has been placed to desired thickness, all high spots shall be cut off with a sharp trowel, or screeded to a true plane as determined by the Engineer. After curing, the exterior of the operator house shall be painted using two coats of a cement based waterproof finish such as Tamoseal or Thorocoat as per the manufacturer's recommendations. Submit the manufacturer's color chart to the Bridge Design Engineer for color selections.

EXTERIOR CAULK: After all exterior repairs are complete including the replacement of the door and windows, and all painting is complete and thoroughly dry, the contractor shall caulk all outside joints at the perimeter of all door openings, window frames, and any other joints around the entire perimeter of the building. Caulk shall be neatly applied to provide a smooth, seamless seal without excess drips or overlap.

Exterior caulk shall be 100% Silicone, UV resistant, mold and mildew resistant, watertight, clear in color, and have a lifetime guarantee. "G.E. Silicone II Window and Door", or approved equal.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-23, Repair Exterior Wall Cracks and Paint Exterior Walls of Operator's House, per lump sum.

ITEM S-24, REMODEL BATHROOM FIXTURES INSIDE OPERATOR'S HOUSE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remodel the operator house bathroom. The remodeling includes removing and replacing the existing wall lavatory, water closet, medicine cabinet, paper towel dispenser, soap dispenser, deluxe exhaust fan, installing a point-of-use water heater and safety catch pan inside operator house.

FIXTURES: All plumbing fixtures shall be rigidly supported and shall be fitted with necessary trimmings. All exposed metal parts, trim, brackets, drains, supply lines, escutcheons, etc. shall have a chromium plated finish. All fixtures shall be trapped by a water seal trap of not less than 2 inches or more than 4 inches and placed as close to the fixture as possible. Traps shall have clean-outs. Immediately after installation of plumbing fixtures, cover each fixture with a fixture protector. Each fixture shall have an accessible shut-off valve in the water supply line that shall allow the fixture to be shut-off without interfering with the water supply to any other fixtures. All pipes passing through walls shall have escutcheons on finished side of walls. All escutcheons shall be held in place by set screws.

Rough-in locations shall be carefully spotted to result in a symmetrical pattern with sufficient spacing to accommodate full escutcheons. In cases where fixtures may have hot and cold water trim without hot service, connect cold water to both trim inlets. The contractor shall verify that all new fixtures shall fit into existing locations prior to ordering.

The following fixtures shall be provided and installed in the locations shown on the plans in full accordance to the manufacturer's instructions and the state sanitary code. Fixtures shall be American Standard, Crane, Eljer, Kohler or approved equal.

- Lavatory: Shall be white cast iron with acid resistant enamel finish and shall be of the size shown on the plans. Lavatory shall have integral front overflow, anti-splash rim and shall come complete with a center set faucet, and lever handles. Valves shall be brass bodied. The finish on all lavatory hardware shall be polished chrome. There shall be no sharp or abrasive surfaces under the lavatory. The lavatory shall be installed in strict accordance with the manufacturer's instructions.
- Water Heater: Shall be a 2.5 gallon water heater with the 1500 watt, 240 volt, single phase element, and a 14" dia. safety catch pan installed under the lavatory.
  - (Water Heater) "Rheem-Rudd, Model No. EGSP2", or approved equal.
  - (Safety Catch Pan) "Rheem-Rudd, Part No. A3-21990A-G", or approved equal.
- Water Closet: Water closet shall be vitreous china, floor-mounted, tank type and shall have an elongated siphon jet bowl, and come complete with a plastic seat with concealed hinges. The water closet shall be installed in strict accordance with the manufacturer's instructions.

TOILET ROOM ACCESSORIES: The contractor shall provide and install toilet room accessories as located on the plans and as specified below. All accessories shall come complete with required mounting equipment. Accessories shall be Bradley or approved equal.

- Medicine Cabinet with Mirror: Shall be 22 gauge stainless steel with satin finish. Match existing medicine cabinet size opening.
- Tissue Holder: The tissue holder shall be single roll, surface mounted, and stainless steel with satin finish.
- Paper Towel Dispenser: Shall be surface mounted, 11"x15", 22 gauge stainless steel with satin finish. Paper towel dispenser shall dispense 400 c-fold towels.
- Liquid Soap Dispenser: Shall be 8"x5", surface mounted 22 gage stainless steel construction with satin finish. Soap dispenser shall have hinged top lid for refilling and a refill indicator window.

WALL MOUNTED, DELUXE EXHAUST FAN: The Contractor shall provide and install a wall-mounted deluxe exhaust fan. All accessories necessary for the complete installation of the exhaust fan shall be included in the bid price for Item S-24.

The exhaust fan for the restroom shall have a 1/25 h.p. motor, exhaust 84 cfm @ 1/8" static pressure, 1.5 maximum sones, and meet or exceed AMCA Standard 301 for sound rating. "Breidert", Model CWD 7 or an approved equal.

The exhaust fan shall be designed for outdoor wall mounting and horizontal discharge. The fan housing shall be heavy-gage spun aluminum with a baked epoxy finish and shall be installed with marine duty stainless steel fasteners. The fan motor shall be permanently lubricated and mounted in a compartment. Exhaust fan shall be equipped with a back draft damper that shall automatically open/close when the fan motor is energized/de-energized, an insect screen and an optional solid state controller. The solid state controller shall be used in adjusting the fan's cfm. The damper shall have a baked epoxy steel frame and aluminum damper vanes. An aluminum grille with a white baked enamel finish shall be installed on the interior wall of the restroom.

SINK AND BATHROOM COUNTERTOP CAULK: The caulk for the sink and countertops in the bathroom, and any other wet surfaces shall be 100% Silicone, mold and mildew resistant,

watertight, and have a lifetime guarantee. "G.E. Silicone II Kitchen and Bath", or approved equal.

The contractor shall apply caulk to the edges of all sinks and bathroom countertops inside the operator's house. Caulk shall be neatly applied to provide a smooth, seamless seal without excess drips or overlap. Caulk shall be applied after painting is complete, and the paint has thoroughly dried. Manufacturer's color pallet shall be submitted to the Bridge Design Engineer for color selection.

Non-wet surfaces in the bathroom shall be caulked with the interior, paintable caulk specified in S-Item 27.

WATER CONNECTIONS: All necessary water connections between the new 3/4" waterline and the new lavatory and water closet shall be included in this bid Item.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-24, Remodel Bathroom Fixtures Inside Operator's House, per lump sum.

ITEM S-25, REPAIR AND INSTALL NEW FLOOR AND WALL TILES INSIDE OPERATOR'S HOUSE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove all floor tiles and install new floor tile inside operator house including the bathroom. All existing floor tile shall be removed and new floor tile shall be installed including under the existing control console and the existing electrical switchboard. Remove all existing wall tile and install new wall tile in the operator house including the bathroom. Floor tile and wall tile shall be installed before installing the new cabinets.

GENERAL REQUIREMENTS: Project shall utilize unglazed ceramic floor tiles and glazed ceramic wall tiles. Module size shall be the actual tile size (minor facial dimension as measured per ASTM C 499) plus joint width indicated. Facial dimension shall be the nominal tile size as defined in ANSI A137.1.

SUBMITTALS: Shall include the following.

- Product Data: For each type of product indicated.
- Shop Drawings: Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contraction, control, and isolation joints in tile substrates and finished tile surfaces.
- Samples:
  - Full-size units of each type and composition of tile and for each color and finish required.
  - Full-size units of each type of trim and accessory for each color and finish required.
  - Full range of colors of grout.
- Master Grade Certificates: For each shipment, type, and composition of tile, signed by tile manufacturer and Installer.

QUALITY CONTROL:

- Source Limitations for Tile: Obtain all tile of same type and color or finish from one source or producer.
- Source Limitations for Settings and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from a single manufacturer and each aggregate from one source or producer.

CERAMIC TILES: Shall conform to the following specifications.

A. GENERAL:

- ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1, "Specifications for Ceramic Tile," for types,, compositions, and other characteristics indicated.
  - Provide tile complying with Standard grade requirements, unless otherwise indicated.
  - For facial dimensions of tile, comply with requirements relating to tile sizes specified in Part 1 "Definitions" Article.
- ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI standards referenced in "Setting and Grouting Materials" Article.
- Colors, Textures, and Patterns: Where manufacturer's standard products are indicated for tile, grout, and other products requiring selection of colors, surface textures, patterns and other appearance characteristics, provide specific products or materials complying with the following requirements:
  - Provide selections made by the Bridge Design Engineer from the manufacturer's full range of standard colors, textures, and patterns for the products of type indicated.
  - Provide tile trim and accessories that match color and finish of adjoining flat tile.
- Factory Blending: For tile exhibiting color variations within ranges selected during Sample submittals, blend tile in factory and package so tile units taken one package show same range in colors as those taken from other packages and match approved Samples.
- Mounting: For factory-mounted tile, provide back or edge-mounted tile assemblies as standard with manufacturer, unless otherwise indicated.

B. TILE PRODUCTS:

- Floor Tile: Unglazed Ceramic Mosaic Tile, factory-mounted flat tile as follows:
  - Surface: Smooth, without abrasive admixture.
  - Module Size: 2 by 2 inches
  - Nominal Thickness: ¼ inch
  - Pattern: Provide border pattern and field of colors as selected by the Bridge Design Engineer from the manufacturer's full range of offerings.
  - Floor Tile shall be as manufactured by one of the following products or an approved equal:
    - American Olean; Div. of Dal-Tile International Corp.
    - Crossville Ceramics Company, L.P.
    - Florida Tile Industries, Inc.
    - United States Ceramic Tile Company
- Wall and Base Tile: Glazed Ceramic Tile as follows:

- Surface: Smooth, without abrasive admixture.
- Module Size: 4 ¼ by 4 ¼ inches
- Nominal Thickness: ¼ inch
- Pattern: Provide border pattern and field of colors as selected by the Bridge Design Engineer from the manufacturer's full range of offerings.
- Wall and Base Tile shall be as manufactured by one of the following products or an approved equal:
  - American Olean; Div. of Dal-Tile International Corp.
  - Crossville Ceramics Company, L.P.
  - Florida Tile Industries, Inc.
  - United States Ceramic Tile Company

- Ceramic Mosaic Trim Units: Matching characteristics of adjoining flat tile and coordinated with sizes and coursing of adjoining flat tile where applicable. Provide shapes as follows, selected from manufacturer's standard shapes:
  - Wainscot Cap for Thin-Set Mortar Installations: Surface bullnose.
  - External Corners for Thin-Set Mortar Installations: Surface bullnose.
  - Base: Coved.

DELIVERY, STORAGE, AND HANDLING: Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirement in ANSI A137.1 for labeling sealed tile packages.

INSTALLATION: Installation of the wall and floor tiles shall be in strict accordance with the manufacturer's recommendations and the following standards:

- ANSI Tile Installation Standards: Comply with parts of ANSI A108 Series "Specifications for Installation of Ceramic Tile" that apply to types of setting and grouting materials and to methods indicated in ceramic tile installation schedules.
- TCA Installation Guidelines: TCA's "Handbook for Ceramic Tile Installation." Comply with TCA installation methods indicated.

PAYMENT: Payment for all labor, equipment, material, and incidentals required to satisfactorily perform the work described in this item shall be made under:

Item S-25, Repair and Install New Floors and Wall Tiles Inside Operator's House, per lump sum.

ITEM S-26, REMOVE AND REPLACE OPERATER HOUSE WINDOWS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to install new windows as per the manufacturer's recommendations. All existing caulking and backing material used during the initial installation of the windows shall be thoroughly removed. All building frame work shall be cleaned of dirt, dust and other foreign materials by the use of water or air under pressure and such other methods as are necessary to secure satisfactory results. All building frame work shall be inspected and approved by the Engineer for cleanliness prior to installing the new windows.

Included in Bid Item S-26 at no additional cost: Relocate the existing HVAC window unit. The unit shall be water tight and secured to the building structure and the storefront window system. Enclose the outside section of the HVAC unit with a security cage, at no

additional cost. All work shall be done in such manner as not to damage the building's frame work.

ALUMINUM STOREFRONT SYSTEM AND WINDOWS: Shall conform to the following specifications.

A. GENERAL:

- Aluminum Storefront System and Windows: Shall be as manufactured by "Kawneer", Series: Trifab VG 451T (thermal) framing system or approved equal.
- Framing Member Profile: 2" x 4-1/2" nominal dimension finish/color: 70% fluoropolymer PVDF system that meets AAMA 2605, a color chart shall be submitted for approval by the bridge design engineer.
- Wind loads: Provide framing system; include anchorage, capable of withstanding wind load design pressures for the location as specified in the international building code, 2000 edition.
- Air Infiltration: The test specimen shall be tested in accordance with ASTM E 283. Air infiltration rate shall not exceed 0.06 cfm/ft2 at a static air pressure differential of 6.24 psf.
- Water Resistance: The test specimen shall be tested in accordance with ASTM E 331. There shall be no leakage at a minimum static air pressure differential of 8 psf as defined in AAMA 501.
- Uniform Load: A static air design load of 20 psf shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no deflection in excess of l/175 of the span of any framing member. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.
- Thermal Transmittance (u-factor): When tested to AAMA specification 1503, the thermal transmittance (u-factor) shall not be more than:
    - Glass to exterior - 0.47 (low-E)
    - Glass to center - 0.44 (low-E)
    - Glass to interior - 0.41 (low-E)
- Condensation Resistance (CRF): When tested to AAMA specification 1503, the condensation resistance factor shall not be less than:
    - Glass to exterior - 70frame and 69glass (low-E)
    - Glass to center - 62 frame and 68glass (low-E)
    - Glass to interior - 56 frame and 67 glass (low-E)

INSTALLATION: Install framing system in accordance with manufacturer's instructions and AAMA storefront and entrance guide specifications manual.

- 1. Dissimilar materials: provide separation of aluminum materials from sources of corrosion or electrolytic action contact points.
- 2. Weathertight construction: install sill members and other members in a bed of sealant or with joint filler or gaskets, to provide weathertight construction. Coordinate installation with wall flashings and other components of construction.
- 3. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.

- 4. Provide alignment attachments and shims to permanently fasten system to building structure.
- 5. Align assembly plumb and level, free of warp and twist. Maintain assembly dimensional tolerances aligning with adjacent work.

- Related products installation requirements:
  - 1. Sealants (perimeter): shall be waterproof silicon according to window frame manufacturer's recommendations.
  - 2. Glass: see item 3.
- Reference: ANSI Z97.1, CPSC 16 CFR 1201 and GANA glazing manual.

FIELD QUALITY CONTROL

- Field Tests: Project engineer shall select storefront units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured. Conduct tests for air infiltration and water penetration with manufacturer's representative present. Tests not meeting specified performance requirements and units having deficiencies shall be corrected as part of the contract amount.
  - 1. Testing: testing shall be performed by a qualified independent testing agency. Testing standard per AAMA 503, including reference to ASTM E 783 for air infiltration test and ASTM E 1105 water infiltration test.
- Air Infiltration Tests: Conduct tests in accordance with ASTM E 783. Allowable air infiltration shall not exceed 1.5 times the amount indicated in the performance requirements or 0.09 cfm/ft2, which ever is greater.
- Water infiltration tests: conduct tests in accordance with ASTM E 1105. No uncontrolled water leakage is permitted when tested at a static test pressure of two-thirds the specified water penetration pressure but not less than 6.24 psf.
- Manufacturer's field services: upon owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer's instructions.

MATERIALS

- Framing and Components (aluminum):
  - 1. Material standard: ASTM B 221; 6063-T6 alloy and temper
  - 2. Member wall thickness: each framing member shall provide structural strength to meet specified performance requirements.
  - 3. Tolerances: reference to tolerances for wall thickness and other cross-sectional dimensions of storefront members are nominal and in compliance with AA aluminum standards and data.
- Accessories
  - Fasteners: where exposed, shall be stainless steel.
  - Gaskets: glazing gaskets shall be extruded EPDM rubber.
  - Perimeter anchors: aluminum. When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.
- Thermal barrier (Trifab VG 451T):
  - 1. Kawneer isolock thermal break with a 1/4 " separation consisting of a two part chemically curing, high density polyurethane which is mechanically and adhesively joined to aluminum storefront sections. Thermal break shall be

designed in accordance with AAMA TIR-A8 and tested in accordance with AAMA 505.

RELATED MATERIALS

- Sealants: shall be in accordance with storefront system manufacturer's recommendations.
- Glass: shall be tempered and in accordance with storefront system manufacturer's recommendations. Glass shall be light blue tinted.
- Caulking: The contractor shall caulk all outside joints at the perimeter of all window openings and around the entire perimeter of the building. It shall not be affected by long exposure to extremes of outside temperature; shall be free from volatile or drying oils; shall be mixed to the proper consistency at the factory; and shall be used as directed by the manufacturer. Caulking compounds shall have the following properties:
    - A. Shall be UV resistant.
    - B. Shall have a lifetime guarantee.
    - C. Shall be clear in color.
    - D. Shall be GE silicone II gutter and flashing sealant or approved equal.

FABRICATION

- General:
    - 1. Fabricate components per manufacturer's installation instructions and with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.
    - 2. Accurately fit and secure joints and corners. Make joints flush, hairline and weatherproof.
    - 3. Prepare components to receive anchor devices. Fabricate and install anchors.
    - 4. Arrange fasteners and attachments to conceal from view.
- Submittals
    - 1. General: prepare, review, and submit specified submittals in accordance with "Standard Specifications for Roads and Bridges," 2006 edition. Submit drawings, brochures, 1 year manufacturer's warranty, colors, and installation procedures for approval.
    - 2. Quality assurance/control submittals:
    - 3. Test reports: submit certified test reports showing compliance with specified performance characteristics.

QUALITY ASSURANCE

- Qualifications:
    - 1. Installer qualifications: installer shall have a minimum of 5 years experience installing store fronts similar to this project.
    - 2. Manufacturer qualifications: manufacturer capable of providing field service representation during construction, approving acceptable installer and approving application method.

DELIVERY, STORAGE, AND HANDLING

- 1. Ordering: comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.

- 2. Packing, shipping, handling and unloading: deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- 3. Storage and protection: store materials protected from exposure to harmful weather conditions. Handle framing material and components to avoid damage. Protect framing material against damage from elements, construction activities, and other hazards before, during and after framing installation.

PAYMENT: Payment for all labor, equipment, material and incidentals required to satisfactorily complete the removal of existing and installation of the new operator house windows will be made under:

Item S-26, Remove and Replace Operator House Windows, per lump sum.

ITEM S-27, PAINT INTERIOR OF OPERATOR'S HOUSE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove any unnecessary items on the interior wall and ceiling that are not being used and patch surfaces (awning rod, plates, bolts, holes, vent, etc.), repairing any defects in the wall and ceiling texture, and painting the ceilings and walls above the wall tiles.

Paintings and Coatings: The contractor shall provide and apply paint and coatings as shown on the plans and described herein. All application of and preparation for painting and coating shall be in strict accordance with the manufacturer's recommendations. Paint thinning shall not be allowed. All painting materials shall be of commercial grade quality. Painting shall be as follows:

- Interior walls and ceilings:
  The interior mortar walls above the tile and the ceiling shall be repaired of all defects using a cement sand mortar mix, cleaned with detergent and water, and the surface allowed to dry thoroughly prior to painting.
  - 2 coats of SuperPaint or Promar 200XP acrylic latex paints shall be eggshell, both in flat finish, as manufactured by Sherwin Williams or approved equal.
- Submit the manufacturer's color chart to the Bridge Design Engineer for color selection.

PAYMENT: Payment for all labor, equipment, material and incidentals required to satisfactorily repair and paint the interior walls and ceilings inside the operator house will be made under:

Item S-27, Paint Interior of Operator's House, per lump sum.

ITEM S-28, INSTALL MISCELLANEOUS ITEMS AT OPERATOR'S HOUSE: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required for removal of existing and replacement-in-kind of the cabinets inside the bathroom, providing an office desk and chair, providing and installing a microwave oven countertop, radio table, smoke detector, fire extinguisher, countertop convection/microwave oven, an awning, and relocation of the radio antenna, telephone wire, and electric wires including their encasement in rigid conduit.

Replace-In-Kind Bathroom Cabinets: Replace-in-kind the 9' H x 5'-2" W x 2' D cabinets inside the bathroom of the operator house, except add an additional half shelf in each of the 2 bottom sections of the cabinet.

Millwork:

- All millwork shall be assembled in the mill, in so far as practicable, and delivered ready for erection. Where field cutting and fitting is required field measurements shall be taken or the proper allowances made.
- Mill assemblies shall be joined with hidden nails and screws and where possible with mortise and tenens and glued blocks. Exposed nails shall be countersunk. Glue shall be waterproof type and of best quality. All millwork shall be cut with sharp knives and sanded perfectly smooth to produce a surface suitable for uniform stain.
- Cabinet layouts and the operator's desk shall be in accordance to the plan drawings. Cabinets shall have enclosed backs. All cabinet shelving shall be adjustable. Cabinets shall come complete with all required hardware to include concealed hinges, pulls, drawer slides, drawer locks and cabinet door locks. Hardware shall be top line throughout.
- Plywood- exposed sides: HPVA Grade A, comb grain, and rift cut. Permanently hidden sides can be grade C.
- Solid wood concealed shall be SYP, SPIB grade marked C.
- Items of millwork shall be delivered to the work site work dry and protected from damage or dampness.
- Millwork shall meet or exceed requirements of "custom" grade of the architectural woodwork institute.
- The contractor shall furnish shop drawings for all millwork.
- Countertops on cabinets shall be as specified under "Countertops" below.
- Cabinets - shall be made of paint grade plywood.
- Drawers - shall be made of paint grade plywood exposed edges and rails. Drawer slides shall be side mounted, full extension, zinc-plated steel drawer slides with steel ball bearings, BHMA A156.9, B05091, and rated for 75 lbf.

Painting and Coatings:

- The contractor shall provide and apply paint and coatings as shown on the plans and described herein. All application of and preparation for painting and coating shall be in strict accordance with the manufacturer's recommendations. Paint thinning shall not be allowed. All painting materials shall be of commercial grade quality. Painting shall be as follows:
    - Cabinets
        - 1 coat of interior acrylic primer
        - 2-coats of interior paint shall be eggshell 100% acrylic paint
- Submit the manufacturer's color chart to the Bridge Design Engineer for color selection.

Office Desk and Chair: The desk shall be 29 1/2" H x 60" W x 30" D, high-gloss, high pressure mahogany woodgrain laminate with an abrasion stain resistant top, traditional style double pedestal with file draws on both sides extending to the floor. The desk shall have a manufacturer's limited lifetime warranty. The desk shall be Hon 94000 Series or equal. The desk chair shall meet or exceed ANSI/BIFMA performance standards, be a black fabric high-back chair 1-touch seat-height adjustment, adjustable tilt control. The desk chair shall have a manufacturer's limited lifetime warranty. The desk chair shall be Global Enterprise Collection or equal.

Microwave Oven Countertop: Install a microwave oven countertop table with 2-21" wide single door base cabinet w/1 drawer and 1 shelf and a 22" x 43" countertop. The countertop shall be 1/2" monolithic solid polymer with a laminate surface and shall be finished on all 4 sides with no backsplash. The cabinets shall be made of solid wood with a mahogany finish. Cut hole in back of cabinet to expose existing wall socket. Color table shall be submitted to the Bridge Designer Engineer. Cabinet and countertop shall be in accordance with the millwork specification included in this Bid Item.

Radio Table: Install a radio countertop table with a 21" wide single door base cabinet w/1 drawer and 1 shelf and a 22" x 24 1/2" countertop. The countertop shall be 1 1/2" monolithic solid polymer with a laminate finish and shall be finished on all 4 sides with no backsplash. The cabinets shall be made of solid wood with a mahogany finish. Cut hole in back of cabinet to expose existing wall socket. Color table shall be submitted to the Bridge Designer Engineer. Cabinet and countertop shall be in accordance with the millwork specification included in this Bid Item.

Smoke Detector: The smoke detector shall be ionization type with led light and shall be powered by a 9-volt battery.

Fire Extinguisher: The fire extinguisher shall be ABC dry chemical type. The capacity for the fire extinguisher shall be 10lbs. Upon acceptance of the building, the extinguisher shall be filled and charged and installed in a full, double strength glass cabinet with flat trim and die-cut red letters with the words "FIRE EXTINGUISHER" on them. The top of the fire extinguisher shall be mounted at a height no greater than 5 feet above the finished floor and shall be in compliance with NFPA 10, Standard for Portable Fire Extinguishers. The fire extinguisher shall be tagged in accordance with the Fire Marshal's office.

Countertop Convection/Microwave Oven: The convection/microwave oven shall have a 1.5 cubic foot capacity and a 120 volt, 1500 watts and 15 amperage input. Interior cooking area shall be stainless steel and come complete with a cooking turntable. Exterior shall be white. Convection/microwave oven shall be GE profile Model # JE1590WH or approved equal.

Awning: Remove the existing awning, patch all existing holes, install a new aluminum canopy 3' projection x 4' length centered above the outside door of the operator house. All necessary bracing for the installation of the canopy shall be above the door frame. The canopy shall be wind rated as per the International Building Code, Current Edition. Submit color chart to the Bridge Design Engineer.

PAYMENT: Payment for all labor, equipment, material and incidentals required to satisfactorily complete the installation of miscellaneous items will be made under:

Item S-28, Install Miscellaneous Items at Operator's House, per lump sum.

ITEM S-29, REMOVE ABANDONED CONDUIT: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove existing abandoned conduits that are attached to the bridge as shown on the plans. Verify that the conduit

is abandoned before removal. The existing conduit shall be removed from the project site and become the property of the Contractor and shall be properly disposed of off the project site.

PAYMENT: Payment for all labor, equipment, material and incidentals required to satisfactorily complete Remove Abandoned Conduit will be made under:

Item S-29, Remove Abandoned Conduit, per linear foot.

ITEM S-30, REMOVE ABANDONED CONDUIT HANGERS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to remove existing abandoned conduit hangers as shown on the plans. The existing conduit hangers shall be removed from the project site and become the property of the Contractor and shall be properly disposed of off the project site.

All conduit hangers that are attached to or have come loose from concrete shall be removed a minimum of 1" below the face of existing concrete surface. The concrete shall be repaired using SinkaRepair SHA, according to the manufacturer's recommendations.

All conduit hangers that are attached to or have come loose from steel members shall be removed and all welds shall be ground smooth. All repairs shall be completed prior to the required Field Cleaning and Painting of the existing metal work.

PAYMENT: Payment for all labor, equipment, material and incidentals required to satisfactorily complete the removal of existing conduit hangers will be made under:

Item S-30, Remove Abandoned Conduit Hangers, per each.

ITEM S-31, LATERAL BRACING REPAIR: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to repair a section of lateral bracing. All new bolts, nuts and washers shall be galvanized, ASTM A325 w/1 nut and washer required per bolt.

Perform localized cleaning of the metalwork in the repair area. Core a 3/4" dia. crack relief hole in the horizontal leg of the existing angle above the existing cut-out. Use Dye Penetrant to determine the tip of the crack, then mark the location to core the 3/4" dia. crack relief hole in the horizontal leg of the existing angle, centered on, or slightly ahead of the determined tip of the crack.

Field paint the proposed repair area of the existing angles and the new plates using a three-coat organic zinc system in accordance with Section 811 and 1008 of the Louisiana Standard Specifications For Roads and Bridges, 2006 Edition, prior to the installation of the new fill and splice plates. Painting of the section of the existing angles and new plates shall be included in the bid price for Item S-31, Lateral Bracing Repair.

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing metalwork.

PAYMENT: Payment for all labor, equipment, material and incidentals required to satisfactorily complete Lateral Bracing Repair will be made under:

Item S-31, Lateral Bracing Repair, per lump sum.

ITEM S-32, REPLACE ROADWAY STRINGERS: This item provides for the removal of existing and replacement of roadway stringers outlined within the limits depicted and detailed on Sheet 23. This work consists of removing the existing 12WF27 stringers and replacing them with new ASTM A709 Grade 50 W12X26 stringers during the replacement of the steel grid flooring. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment shall include all labor, equipment, material, and incidentals necessary to perform this repair. Payment will be made at the unit contract price under:

Item S-32, Replace Roadway Stringers, per linear foot.

ITEM S-33, REPAIR HOLES IN CHORD WEBS: This item consists of providing all necessary materials, labor, equipment, supplies, and incidentals required to repair isolated areas of the chord webs. All new bolts, nuts and washers shall comply with ASTM A325 w/1 nut and washer required per bolt.

Performed localized cleaning of the metalwork in the repair areas. In areas to be repaired the existing conduit is to be removed and raised to permit the installation of the required splice plates. The existing conduit is to be installed on top of the required splice plate. Field paint the proposed repair area of the existing chord webs (top and bottom) and the new splice plates using a three-coat organic zinc system in accordance with Section 811 and 1008 of the Louisiana Standard Specifications For Roads and Bridges, 2006 Edition, prior to the installation of the new splice plates. Painting of the section of the existing chord webs and new splice plates shall be included in the bid price for Item S-33, Repair Holes In Chord Webs.

All repairs shall be completed prior to the required Field Cleaning and Painting of the existing metalwork.

PAYMENT: Payment for all labor, equipment, material and incidentals required to satisfactorily complete Repair Holes In Chord Webs will be made under:

Item S-33, Repair Holes In Chord Webs, per each.

ITEM S-34, INSTALL WALKWAY AROUND OPERATOR'S HOUSE: This item provides for the installation of a new walkway around the operator's house as detailed on Sheets 25a and 25b. This work consists of removing the concrete wingwalls of the operator's house, removing the ladder to the suspended platform beneath the operator's house, and fabricating and installing the walkway metalwork. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment shall include all labor, equipment, material, and incidentals necessary to perform this repair. Payment will be made at the unit contract price under:

Item S-34, Install Walkway Around Operator's House, per lump sum.

ITEM S-35, INSTALL AIR COMPRESSOR PLATFORM AND DECK DRAIN PIPE: This item provides for the installation of a new platform to support the air horn compressor and tank as detailed on Sheets 25b and 60, and a new deck drain pipe to divert drainage away from the new compressor location, as detailed on Sheet 13. All work on this item shall be consistent

with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment shall include all labor, equipment, material, and incidentals necessary to perform this repair. Payment will be made at the unit contract price under:

Item S-35, Install Air Compressor Platform and Deck Drain Pipe, per each.

ITEM S-36, MODIFY SUSPENDED PLATFORM HANGERS/SUPPORTS: This item provides for the installation of five new hangers to support the operator's house suspended platform as detailed on Sheet 25b. This work consists of installing the new support hangers as well as fabrication and installation of bracing members around the northeast and southeast support piles of the operator's house. All work on this item shall be consistent with the provisions of Section 807 – Structural Metals of the Louisiana Standard Specifications for Roads and Bridges.

PAYMENT: Payment shall include all labor, equipment, material, and incidentals necessary to perform this repair. Payment will be made at the unit contract price under:

Item S-36, Modify Suspended Platform Hangers/Supports, per lump sum.

CONTRACT TIME (10/01): The contractor will be issued a "Conditional Notice to Proceed" as defined in Subsection 101.03. The "Conditional Notice to Proceed" will expire *one hundred twenty (120) calendar days* after its issuance, whereupon a "Notice to Proceed" will become effective, unless the contractor begins regular construction at an earlier date at which time the Notice to Proceed becomes effective.

The entire contract shall be completed in all details and ready for final acceptance in accordance with Subsection 105.17(b) within **one hundred thirty (130) working days** after the effective date of the "Notice to Proceed".

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS
(FOR 2006 STANDARD SPECIFICATIONS)

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LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

The 2006 Louisiana Standard Specifications for Roads and Bridges and supplemental specifications thereto are amended as follows.

PART I – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION, DEFINITIONS, AND TERMS:

Subsection 101.03 – Definitions (07/07), Pages 3 – 13).

Delete the definition for "Proposal/Bid Guaranty" and substitute the following.

Proposal / Bid Guaranty. The required security furnished with a bid. The only form of security acceptable is a Bid Bond.

SECTION 102 – BIDDING REQUIREMENTS:

Subsection 102.09 – Proposal / Bid Guaranty (07/07), Page 19.

Delete the contents of this subsection and substitute the following.

PROPOSAL/BID GUARANTY. Each bid shall be accompanied by a proposal/bid guaranty in an amount not less than five percent of the total bid amount when the bidder's total bid amount as calculated by the Department in accordance with Subsection 103.01 is greater than $50,000. No proposal/bid guaranty is required for projects when the bidder's total bid amount as calculated by the Department is $50,000 or less. The official total bid amount for projects that include alternates is the total of the bidder's base bid and all alternates bid on and accepted by the Department. The proposal/bid guaranty submitted by the bidder shall be a bid bond made payable to the contracting agency as specified on the bid bond form provided in the construction proposal. No other form of security will be accepted.

The bid bond shall be on the "Bid Bond" form provided in the construction proposal, on a form that is materially the same in all respects to the "Bid Bond" form provided, or on an electronic form that has received Department approval prior to submission. The bid bond shall be filled in completely, shall be signed by an authorized officer, owner or partner of the bidding entity, or each entity representing a joint venture; shall be signed by the surety's agent or attorney-in-fact; and shall be accompanied by a notarized document granting general power of attorney to the surety's signer. The bid bond shall not contain any provisions that limit the face amount of the bond.

The bid bond will be written by a surety or insurance company that is in good standing and currently licensed to write surety bonds in the State of Louisiana by the Louisiana Department of Insurance and also conform to the requirements of LSA-R.S. 48:253.

All signatures required on the bid bond may be original, mechanical reproductions, facsimiles or electronic. Electronic bonds issued in conjunction with electronic bids must have written Departmental approval prior to use. The Department will make a listing of approved electronic sureties providers on the Bidx.com site.

SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC:
Subsection 107.05 – Federal Aid Participation (04/08), Pages 57 and 58.

Delete the second paragraph.

SECTION 108 – PROSECUTION AND PROGRESS:
Subsection 108.04 – Prosecution of Work (03/05) Pages 74 and 75.

Add the following sentence to the third paragraph of Heading (b).

Should the surety or the Department take over prosecution of the work, the contractor shall remain disqualified for a period of one year from the completion of the project, unless debarment proceedings are instituted.

When the Department of Transportation and Development is not the contracting agency on the project, the second paragraph under Heading (c) is deleted.

PART II – EARTHWORK

SECTION 202 – REMOVING OR RELOCATING STRUCTURES AND OBSTRUCTIONS:
Subsection 202.06 – Plugging or Relocating Existing Water Wells (03/04), Page 105.

Delete the first sentence and substitute the following.

All abandoned wells shall be plugged and sealed at the locations shown on the plans, or as directed by the engineer, in accordance with the "Water Well Rules, Regulations, and Standards, State of Louisiana." This document is available at the Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245. The Water Resource Section's telephone number is (225) 274-4172.

PART III – BASE COURSES

SECTION 302 – CLASS II BASE COURSE:
Subsection 302.05 – Mixing (08/06), Pages 152 and 153.

Delete the first sentence of Subheading (b)(1), In-Place Mixing, and substitute the following.

In-place mixing shall conform to Heading (a)(1) except that the percentage of Type I portland cement required will be 6 percent by volume.

SECTION 305 – SUBGRADE LAYER:
Subsection 305.06 – Payment (01/08), Page 184.

Delete the contents of this subsection and substitute the following.

305.06 Payment. Payment for subgrade layer will be made at the contract unit price which includes lime, lime treatment, cement, cement treatment, water, stone, recycled portland cement concrete, crushed slag, blended calcium sulfate, asphaltic concrete, and asphalt curing membrane or prime coat, subject to the payment adjustment provisions of Section 1002 for specification deviations of asphalt materials and Subsection 303.11(a) for density deficiencies of cement treated materials. Adjustments in pay for increase or decrease in the percent cement ordered by the engineer will be in accordance with Subsection 303.13. Adjustments in pay for

increase or decrease in the percent lime ordered by the engineer will be based on the price of lime shown on paid invoices (total of all charges). The Materials and Testing Section will provide the payment adjustment percentage for properties of asphalt materials.

Payment for geotextile fabric will be included in the contract unit price for subgrade layer.

Payment will be made under:

Item No.	Pay Item	Pay Unit
305-01	Subgrade Layer _____in (mm) Thick	Square Yard (Sq m)

SECTION 307 – PERMEABLE BASES:

Subsection 307.02 – Materials (09/07), Pages 187 and 188.

Delete the contents of Subheading (b), Asphalt, and substitute the following.

(b) Asphalt: The asphalt for asphalt treated permeable base shall be an approved polymer modified asphalt cement, PG 76-22m, or PG 82-22rm complying with Section 1002. The percentage of asphalt cement shall be 2.0 percent to 4.0 percent by weight (mass) of the total mixture. Asphalt cement content and mixing process shall be such that all aggregates are visibly coated. The mixture shall retain 90 percent coating when tested in accordance with DOTD TR 317.

A job mix formula shall be submitted and approved in accordance with Section 502.

SECTION 308 – IN-PLACE CEMENT TREATED BASE COURSE:

All Subsections within Section 308 – (07/07), Pages 191 – 198.

Whenever the reference to "DOTD TR-432, Method D" is used, it shall mean "DOTD TR-432".

PART V – ASPHALTIC PAVEMENTS

SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXTURES:

Subsection 502.02 – Materials (08/06) (11/07), Pages 210 – 213.

Delete Table 502-2, Superpave Asphalt Cement Usage under Subheading (a) and substitute the following.

Table 502-2
Superpave Asphalt Cement Usage

Current Traffic Load Level	Mixture Type	Grade of Asphalt Cement
Level 1	Wearing Course	PG 70-22m
	Binder Course	PG 70-22m
	Base Course	PG 64-22
Level 2	Wearing Course	PG 76-22m
	Binder Course	PG 76-22m
Level A	Incidental Paving	PG 70-22m

Note: A PG 82-22 rm, Waste Tire Rubber Modified Asphalt, may be substituted for any other grade of asphalt cement.

Delete Table 502-3, Aggregate Friction Rating under Subheading (c)(1) and substitute the following.

Table 502-3
Aggregate Friction Rating

Friction Rating	Allowable Usage
I	All mixtures
II	All mixtures
III	All mixtures, except travel lane wearing courses with plan ADT greater than 7000[1]
IV	All mixtures, except travel lane wearing courses[2]

[1] When plan current average daily traffic (ADT) is greater than 7000, blending of Friction Rating III aggregates and Friction Rating I and/or II aggregates will be allowed for travel lane wearing courses at the following percentages. At least 30 percent by weight (mass) of the total aggregates shall have a Friction Rating of I, or at least 50 percent by weight (mass) of the total aggregate shall have a Friction Rating of II. The frictional aggregates used to obtain the required percentages shall not have more than 10 percent passing the No. 8 (2.36 mm) sieve.

[2] When the average daily traffic (ADT) is less than 2500, blending of Friction Rating IV aggregates with Friction Rating I and/or II aggregates will be allowed for travel lane wearing courses at the following percentages. At least 50 percent by weight (mass) of the total aggregate in the mixture shall have a Friction Rating of I or II. The frictional aggregates used to obtain the required percentages shall not have more than 10 percent passing the No. 8 (2.36 mm) sieve.

Subsection 502.14 – Lot Sizes (11/07), Pages 232 and 233.

Delete the first sentence of the first paragraph and substitute the following.

A lot is a segment of continuous production of asphaltic concrete mixture from the same job mix formula produced for the Department at a specific plant, delivered to a specific DOTD project.

SECTION 508 – STONE MATRIX ASPHALT:

Subsection 508.01 – Description (09/07), Page 274.

Delete this subsection and substitute the following.

508.01 DESCRIPTION. This work consists of furnishing and constructing Stone Matrix Asphalt (SMA) which is a plant mixed asphalt concrete wearing course for high traffic applications. This mixture is a rut resistant hot mix design with stone on stone contact. The mixture shall be composed of a PG 76-22m, or PG 82-22rm asphalt cement and a gap graded coarse aggregate structure. Mineral filler and/or fibers shall be used to control draindown. This work shall be in accordance with these specifications, plan details, and as directed. All requirements of Section 502 apply to Stone Matrix Asphalt, except as modified herein. All plant and paving equipment and processes must meet the requirements of Section 503.

Mixture used for shoulder may be Stone Matrix Asphalt or any mixture type shown in Table 502-5.

Subsection 508.02 – Materials (09/07), Page 274.

Delete the contents of subheading (a), Asphalt Cement and substitute the following.

(a) Asphalt Cement: Asphalt cement shall be PG 76-22m, or PG 82-22rm as listed on QPL 41 and complying with Section 1002.

PART VI – RIGID PAVEMENT

SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION:

Subsection 602.17 – Payment (09/07), Pages 341 – 344.

Delete the last paragraph of Subheadings (d), Full Depth Corner Patching of Jointed Concrete Pavement, (e) Full Depth Patching of Jointed Concrete Pavement, and (g) Patching Continuously Reinforced Concrete Pavement, and substitute the following.

Payment for deteriorated base course removed as directed by the engineer and replaced with concrete will be made as follows: The value per inch (mm) thickness will be determined by dividing the contract unit price per square yard (sq m) by the plan thickness. Thickness of patches will be measured from the surface that exists at the time of patching. Payment for the additional thickness will be made at 50 percent of the value per inch (mm) thus determined.

PART VII – INCIDENTAL CONSTRUCTION

SECTION 701 – CULVERTS AND STORM DRAINS:

All Subsections within Section 701 (08/07), Pages 347 – 358.

Delete Section 701, Culverts and Storm Drains and substitute the following.

SECTION 701
CULVERTS AND STORM DRAINS

701.01 DESCRIPTION. This work consists of furnishing, installing, and cleaning pipe, pipe arch, storm drains and sewers, also referred to as culverts or conduit, in accordance with these specifications and in conformity with lines and grades shown on the plans or established.

701.02 MATERIALS. Materials shall comply with the following sections and subsections:

Usable Soil	203.06(a)
Selected Soil	203.06(b)
Plastic Soil Blanket	203.10
Mortar	702.02
Flowable Fill	710
Portland Cement Concrete	901
Reclaimed Asphaltic Pavement (RAP)	1003.01 & 1003.04(d)
Stone	1003.03(b)
Recycled Portland Cement Concrete	1003.03(c)
Granular Material	1003.07
Bedding Material	1003.08
Concrete Sewer Pipe	1006.02
Reinforced Concrete Pipe	1006.03
Reinforced Concrete Pipe Arch	1006.04
Gasket Materials	1006.06
Plastic Pipe	1006.07
Split Plastic Coupling Bands	1006.07(d)(4)
Plastic Yard Drain Pipe	1006.09
Bituminous Coated Corrugated Steel Pipe and Pipe Arch	1007.02
Structural Plate for Pipe, Pipe Arch and Arch	1007.04
Corrugated Aluminum Pipe and Pipe Arch	1007.05
Coupling Bands	1007.09
Reinforcing Steel	1009
Geotextile Fabric	1019

(a) Side Drain Pipe or Side Drain Pipe Arch: When the item for Side Drain Pipe or Side Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, corrugated metal pipe or corrugated metal pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(b) Cross Drain Pipe or Cross Drain Pipe Arch: When the item for Cross Drain Pipe or Cross Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, corrugated metal pipe or corrugated metal pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(c) Storm Drain Pipe or Storm Drain Pipe Arch: When the item for Storm Drain Pipe or Storm Drain Pipe Arch is included in the contract, the contractor has the option of furnishing reinforced concrete pipe or reinforced concrete pipe arch, or plastic pipe, as allowed by EDSM II.2.1.1 or unless otherwise specified.

(d) Yard Drain Pipe: When the item for Yard Drain Pipe is included in the contract, the contractor has the option of furnishing concrete sewer pipe, plastic yard drain pipe or plastic pipe in accordance with Section 1006 unless otherwise specified.

(e) Material Type Abbreviations:

(1) Reinforced Concrete Pipe:

RCP	Reinforced Concrete Pipe
RCPA	Reinforced Concrete Pipe Arch

(2) Corrugated Metal Pipe:

CAP	Corrugated Aluminum Pipe
CAPA	Corrugated Aluminum Pipe Arch
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CSP	Corrugated Steel Pipe
CSPA	Corrugated Steel Pipe Arch
BCCSP	Bituminous Coated Corrugated Steel Pipe
BCCSPA	Bituminous Coated Corrugated Steel Pipe Arch

(3) Plastic Pipe:

PP	Plastic Pipe
PVCP	Polyvinyl Chloride Pipe
RPVCP	Ribbed Polyvinyl Chloride Pipe
CPEPDW	Corrugated Polyethylene Pipe Double Wall

(f) Joint Type Abbreviations:

T1	Type 1 Joint
T2	Type 2 Joint
T3	Type 3 Joint

(g) Quality Assurance for Pipe: Manufacturing plants will be periodically inspected for compliance with specified manufacturing methods, and material samples will be randomly obtained for laboratory testing for verification of manufacturing lots. Materials approved at the manufacturing plant will be subject to visual acceptance inspections at the jobsite or point of delivery.

701.03 EXCAVATION. For all pipe, when the sides of the trench are stable as evidenced by the sides of the trench being able to maintain a vertical cut face, the minimum trench width at the bottom of the excavation will be 18 inches (460mm) on either side of the outside diameter of the pipe. If the sides of the trench are unstable, the width of the trench at the bottom of the excavation, for plastic or metal pipe, shall be a minimum width of at least 18 inches (460mm) or one pipe diameter on each side of the outside diameter of the pipe, which ever is greater. Surplus material or excavated material that does not conform to the requirements of Subsection 203.06(a) shall be satisfactorily disposed of in accordance with Subsection 202.02. Moisture controls

including backfill materials selection and dewatering using sumps, wells, well points or other approved processes may be necessary to control excess moisture during excavation, installation of bedding, over-excavated trench backfilling, pipe placement and pipe backfill.

(a) Over-excavation: When unsuitable soils as defined in Subsection 203.04 or a stable, non-yielding foundation cannot be obtained at the established pipe grade, or at the grade established for placement of the bedding, unstable or unsuitable soils below this grade shall be removed and replaced with granular material meeting the requirements of Subsection 1003.07, bedding materials meeting the requirements of Subsection 1003.08 or Type A backfill. All granular, backfill materials placed below the established pipe or bedding grade shall be placed in lifts not exceeding 8 inches (200 mm) thick and sufficiently compacted by hand or a dynamic mechanical hand compaction device over the surface of each lift to form a stable, non-yielding foundation at the surface of the established bedding or pipe grade.

When rock is encountered, it shall be removed below grade and replaced with material complying with Subsection 1003.07, bedding materials meeting the requirements of Subsection 1003.08 or Type A backfill. The compacted earth cushion shall have a thickness under the pipe of at least 1/2 inch per foot (40 mm/m) of fill height over the top of the pipe with a minimum thickness of 8 inches (200 mm). All granular, backfill materials placed below the established pipe or bedding grade shall be placed in lifts not exceeding 8 inches (200 mm) thick and sufficiently compacted by hand or a dynamic mechanical hand operated compaction device over the surface of each lift to form a stable, non-yielding foundation at the surface of the established bedding or pipe grade.

Materials used to backfill in an over-excavated portion of a trench do not require encasement in a Geotextile Fabric.

Density of approved materials placed in over-excavated trenches will not be measured or determined.

701.04 FORMING PIPE BED. Bedding material, when specified, shall be constructed in accordance with Section 726. Materials allowed for bedding shall be as specified in Subsection 1003.08 or may be Type A backfill materials. When bedding materials are specified, additional excavation shall be performed below established pipe grade and the bedding material placed in lifts not exceeding 8 inches (200 mm) thick and lightly compacted by hand or a dynamic hand compaction device over the surface of each lift.

When the bottom of the pipe is not laid in a trench but is constructed above natural soils, a uniform bed shall be constructed as specified for the bottom of a trench.

Density of approved bedding materials will not be measured or determined.

701.05 LAYING PIPE. Pipe laying shall begin at the downstream end of the line. The pipe shall be in contact with the foundation throughout its length. Bell or groove ends of pipe and outside circumferential laps of riveted metal pipe shall be placed facing upstream. Riveted seam metal pipe shall be placed with longitudinal laps at sides. Pipes in each continuous line shall have the same wall thickness. Metal pipes provided with lifting lugs shall be handled only by these lugs.

After pipe has been laid and before backfill is placed, the engineer will inspect the pipe for alignment, grade, integrity of joints, and coating damage.

701.06 JOINING PIPE.

(a) Joint Usage:

(1) Type 1 (T1) joints shall be used for side drains under drives and similar installations.

(2) Type 2 (T2) joints shall be used for cross drains under roadways, including turnouts.

(3) Type 3 (T3) joints shall be used for closed storm drain systems, flumes and siphons.

(b) Concrete Pipe: Concrete pipe may be either bell and spigot, or tongue and groove. The method of joining pipe sections shall be such that ends are fully entered and inner surfaces are flush and even.

An approved mechanical pipe puller shall be used for joining pipes over 36 inches (900 mm) in diameter. For pipe 36 inches (900 mm) or less in diameter, any approved method for joining pipe may be used which does not damage the pipe.

Joints shall comply with Subsection 1006.05, and shall be sealed with gasket material installed in accordance with the manufacturer's recommendations.

(c) Metal Pipe: Metal pipe shall be firmly joined by coupling bands. Bands shall be centered over the joint.

For Type 1 joints, approved gasket material shall be placed in one corrugation recess on each side of the joint at the coupling band and on each band connection in such manner to prevent leakage.

When Type 2 or 3 joints are specified, joining of metal pipe sections shall conform to the following provisions:

(1) General: Band joints shall be sealed with gasket material. Gasket material shall be placed in accordance with the plan details.

(2) Circular Section: Connecting bands shall be of an approved design and shall be installed in accordance with plan details.

(3) Arch Section: Connecting bands shall be a minimum of 12 inches (300 mm) wide for pipe arch less than 36 inches (900 mm) round equivalent diameter, and a minimum of 21 inches (525 mm) wide for 36 inches (900 mm) round equivalent diameter pipe arch and greater. Bands shall be connected at the ends by approved angle or strap connections. Connecting bands used for 36 inches (900 mm) round equivalent diameter pipe arch and above shall be 2-piece bands.

(d) Plastic Pipe: Joints for plastic pipe shall be either bell and spigot or split coupling bands.

(1) Bell and Spigot Type Joint System: The method of joining pipe sections shall be such that ends are fully entered and inner surfaces are flush and even.

Any approved method for joining pipe may be used which does not damage the pipe.

Joints shall be approved and shall be sealed with a gasket system utilizing gasket material complying with Subsection 1006.06(a).

(2) Split Coupling Type Joint System: Split coupling bands shall comply with all dimensional and material requirements of Subsection 1006.07. The bands shall be centered over the joint. The split coupling band shall be secured to the pipe with a minimum of five stainless steel or other approved corrosion resistant bands.

Joints shall be approved and shall be sealed with gasket material. Gasket material shall be placed in the first two corrugation recesses on each side of the pipe connections. Gasket material shall also be placed on each band connection to prevent leakage. When flexible plastic gasket material is used it shall be a minimum of 1/2 inch (13 mm) in size. The bands shall be tightened to create overlap of the band and shall adequately compress the gasket material.

(e) Connections: Approved connections shall be used when joining new pipes to existing pipes. When concrete collars are required in order to extend the ends of existing pipes that have been damaged or to join different types or sizes of pipes, the concrete collars shall be constructed in accordance with plan details, the applicable requirements of Section 901, and as directed.

(f) Geotextile Fabric, Pipe Joints: For concrete, metal and plastic pipes, Types 2 and 3 joints shall be wrapped with geotextile fabric for a minimum of 12 inches (300 mm) on each side of joint for pipe 36 inches (900 mm) or less in diameter and a minimum of 18 inches (450 mm) on each side of the joint for pipe greater than 36 inches (900 mm) in diameter. Ends of the fabric shall be lapped at least 10 inches (250 mm). The edges and ends of fabric shall be suitably secured for the entire circumference of the pipe.

701.07 RELAYING PIPE. If specified or directed, existing pipes shall be removed and suitable sections relaid as specified for new pipes.

701.08 BACKFILLING.

(a) General: Prior to backfilling, pipes found to be damaged or out of alignment or grade shall be removed and reinstalled, or replaced.

Type A backfill material shall be stone, recycled portland cement concrete, flowable fill, or RAP.

Type B backfill materials are selected soils. Where Type B backfill materials are called for, Type A backfill materials may be substituted.

When corrugated metal pipe is used, the backfill material shall be tested and shall have a resistivity greater than 1500 ohm-cm and a pH greater than 5 when tested in accordance with DOTD TR 429 and DOTD TR 430 respectively.

When Type A backfill material is used, geotextile fabric surrounding this backfill shall be placed in accordance with Subsection 726.03 between the aggregate backfill material and all other natural or placed soils in the trench or embankment. Care shall be taken to prevent damage to geotextile fabric during placement of backfill material. For concrete pipe, the fabric shall enclose not only the initial backfill but shall be wrapped over the top of the pipe with at least 12 inches (300 mm) of overlap.

When a trench box or trench sheeting is used in unstable soils and/or for worker safety, and when moved during backfilling operations, filling and additional compaction of the disturbed zone of backfill must take place immediately and in a manner acceptable to the engineer.

Initial backfill is a structural backfill encasing the pipe from the bottom of the pipe to the springline for concrete pipe and to a point one foot (0.3 m) above the top of the pipe for both metal and plastic pipe. Final backfill is not a structural backfill and shall extend from the top of the initial backfill to the top of the natural ground or subgrade in cut areas or to the top of existing ground in fill areas. Any fill required above the final backfill is considered and treated as embankment.

(b) Backfill Applications: For projects using A+B+C bidding method where rigid and flexible pavement alternates are considered, backfill application (2) below, "Cross Drains Under Flexible Pavements", shall apply for either rigid or flexible pavements.

(1) Under Concrete Pavements: Type B backfill may be used as initial and final backfill for all pipes, culverts or drains under concrete pavements. Placement and compaction shall be as specified in Heading (d) below.

(2) Cross Drains Under Flexible Pavements: All reaches, exclusive of those portions of the pipe which are under shoulders, of cross drains and all other culverts, pipes or drains that cross the centerlines of the new roadway or centerlines of existing roadways, such as intersections and are under flexible pavements shall receive an initial backfill of Type A material. Type B backfill materials may be used as final backfill for all pipes. Placement and compaction shall be as specified in Heading (c) and (d) below. Where the subgrade is above existing ground, embankment material as specified for the remainder of the project shall be used from the top of the final backfill to the top of the established embankment grade.

(3) Other Drains Under Flexible Pavements: All reaches of all culverts, pipes or drains under flexible pavements that do not cross the centerlines of new roadway or centerlines of existing roadways, and exclusive of those portions of the pipe which are totally under shoulders, shall receive an initial and final backfill of Type B material. Placement and compaction shall be as specified in Heading (d) below. Where the subgrade is above existing ground, embankment material as specified for the remainder of the project shall be used from the top of the final backfill to the top of the established embankment grade.

(4) Other Areas: All culverts, pipes or drains in nonpaved areas or paved areas that serve as driveways or shoulders shall receive an initial and final backfill of Type B material. Placement and compaction shall be as specified in Heading (d) below.

(5) Pipes Subject to Construction Traffic; The embankment or pipe backfill shall be constructed to a minimum of 24 inches (600 mm) over the pipe before heavy construction equipment is allowed to cross the installation. Where practical, installations with less than 24 inches (600 mm) of cover over the top of the pipe shall be constructed after heavy hauling is completed over the pipe location. After completion of hauling operations, the contractor shall remove excess cover material. Pipe damaged by hauling and backfilling operations shall be removed and reinstalled, or replaced, at no direct pay.

(c) Placement and Compaction; Type A Backfill: For all pipes, culverts and conduits under paved and nonpaved areas, where Type A backfill material is used, the Type A backfill shall be thoroughly hand compacted under the pipe haunches and then dynamically compacted in layers not exceeding 8 inches (200 mm) compacted thickness. Compaction under the haunches of the pipe shall initially be by hand tamping or other acceptable means, until a level is reached that the dynamic tamping can commence. Each lift shall be compacted by applying at least eight

passes of a hand operated, dynamic mechanical compaction device over the surface of each lift. With approval of the engineer, layer thickness may be increased to 12 inches (300 mm) with verification of satisfactory installation and performance. If flowable fill is used it shall be furnished, placed and consolidated in accordance with Section 710. The contractor shall control placement operations during initial backfill operations so as not to damage protective coatings on metal pipes. The contractor shall repair damaged coatings at no additional pay.

(d) Placement and Compaction; Type B Backfill: For all pipes, culverts and conduits, where Type B backfill is allowed, the Type B material shall be placed in layers not exceeding 8 inches (200 mm) compacted thickness. Compaction shall be with suitable mechanical equipment. With approval of the engineer, layer thickness may be increased to 12 inches (300 mm) with verification of satisfactory installation and performance.

(e) Placement and Compaction; Trenchless or Partial Trench Condition: All pipes, culverts, drains and conduits placed with any portion of the pipe above existing ground must also comply with Subsections (a),(b) (c) and (d) above for the portion of the pipe within a trench and that portion of the pipe not constructed in a trench. The width of initial and final backfill of that portion above existing ground and not within a trench will be constructed to such a width that the requirements for placement, compaction and density are met.

(f) Density Requirements: The in place density of Type A backfill materials and bedding materials, will not be measured or determined. Type A backfill, exclusive of RAP and flowable fill, shall be placed at or near optimum moisture content determined in accordance with DOTD TR 415 or 418. RAP materials shall be placed and compacted in a slightly moist condition.

The maximum dry density of initial or final Type B backfill under all paved areas which are to be under traffic will be determined in accordance with DOTD TR 415 or TR 418 and in-place density determined in accordance with DOTD TR 401. Initial and final Type B backfill under all paved areas, under traffic, shall be placed at or near optimum moisture content determined in accordance with DOTD TR 415 or TR 418. Each layer shall be compacted by approved methods prior to the placement of a subsequent layer. The engineer will approve the compaction method based upon validation that such method, including moisture control, will achieve at least 95 percent of maximum dry density as determined in accordance with DOTD TR 401. With approval of the engineer, density testing may be waived on subsequent layers with backfill installation in accordance with approved compaction methods and continued satisfactory performance.

Initial and final backfill in unpaved areas or paved areas such as shoulders or driveways, shall be placed evenly and compacted along the length of the culvert, pipe or drain from the top of the initial backfill to the top of the subgrade. Layered backfill shall be compacted at least to the density of the adjoining existing soils or the compaction required of the laterally adjoining layers of soil immediately outside the trench for embankment elevations. Initial and final backfill shall be placed and compacted at or near optimum moisture content determined in accordance with DOTD TR 415 or TR 418.

701.09 INSPECTION OF PIPES. After completion of embankment and prior to roadway surfacing, the engineer shall inspect pipes for proper alignment and integrity of joints. Any misaligned pipe or defective joints shall be corrected by the contractor at no direct pay.

(a) Plastic Pipe: Installed plastic pipe shall be tested to ensure that vertical deflections do not exceed 5.0 percent. Maximum allowable deflections shall be governed by the mandrel requirements stated herein.

Deflection tests shall be performed no sooner than 30 calendar days after installation and compaction of backfill. The pipe shall be cleaned and inspected for offsets and obstructions prior to testing.

For pipe 36 inches (900 mm) and less in diameter, a mandrel shall be pulled through the pipe by hand to ensure that maximum allowable deflections have not been exceeded. The mandrel shall be approved by the engineer prior to use. Use of an unapproved mandrel or a mandrel altered or modified after approval will invalidate the test. If the mandrel fails to pass, the pipe is overdeflected.

Unless otherwise permitted, overdeflected pipe shall be uncovered and, if not damaged, reinstalled. Damaged pipe shall not be reinstalled, but shall be removed and replaced with new pipe. Any pipe subjected to any method or process other than removal, which attempts, even successfully, to reduce or cure any overdeflection, shall be removed and replaced with new pipe.

The mandrel shall be a rigid, nonadjustable, odd-numbered legged (minimum 9 legs) mandrel having a length not less than its nominal diameter or 24 inches (600 mm), whichever is less. The minimum diameter at any point shall be 5.0 percent less than the base inside diameter of the pipe being tested. The mandrel shall be fabricated of steel, aluminum or other approved material fitted with pulling rings at each end. The nominal pipe size and outside diameter of the mandrel shall be stamped or engraved on some segment other than a runner. A suitable carrying case shall be furnished.

For pipe larger than 36 inches (900 mm) in diameter, deflection shall be determined by a method approved by the engineer. If a mandrel is selected, the minimum diameter, length, and other requirements shall conform to the above requirements.

Mandrel testing shall be conducted by the contractor in the presence of the engineer. Mandrel testing shall be at no direct pay.

(b) Metal Pipe: If the inside diameter of metal pipe or rise dimension of metal pipe arch deflects more than 5.0 percent from original dimensions, they shall be removed and reinstalled, unless they do not rebound or are damaged. Pipe or pipe arch which are damaged or do not rebound shall be removed and replaced at no direct pay. Measurement of deflection will be made by the engineer away from rerolled ends.

701.10 CLEANING PIPES.

(a) Existing Pipes: Pipes designated to be cleaned shall be cleaned of soil, debris and other materials to the invert of the pipe. Designated pipes shall be cleaned by approved methods that will not damage the pipes. Any damage caused by the contractor's operations shall be satisfactorily repaired at no direct pay.

Removed soil, debris and other materials shall be disposed of in accordance with Subsection 202.02 or as otherwise approved in writing.

(b) Contractor Installed Pipes: Prior to final acceptance, pipes shall be cleaned of all debris and soil to the invert of the pipe at no direct pay.

Removed soil, debris and other materials shall be disposed of in accordance with Subsection 202.02 or as otherwise approved in writing.

701.11 STUBBING AND PLUGGING PIPES. When it is required that pipes be plugged, such plugs shall be constructed of Class R concrete complying with Section 901. Thickness of plug and method of construction shall be as directed.

When new pipes are to be stubbed into new or existing pipes or other structures, the connection shall be made with approved mortar complying with Subsection 702.02.

701.12 MEASUREMENT. Pipe, both new and relaid, will be measured in linear feet (lin m) as follows unless stated otherwise.

(a) Pipe not confined by fixed structures will be measured by the number of joints at the nominal length of each joint.

(b) Pipe confined by fixed structures will be measured along the pipe between the termini of pipe in structure walls.

(c) Pipe confined by a fixed structure on one end and unconfined at the other end will be measured along the pipe from the terminus of pipe in the structure wall to the unconfined end of pipe.

(d) Fabricating of pipe tees, elbows and other fittings will be measured per each fitting. The length of pipe in such fittings will be included in the pay length measurement of pipes of which they form a part.

(e) Excavation required for installation of pipes will not be measured for payment, except as otherwise specified in Subsection 203.14.

(f) Furnishing and placing backfill material below existing ground level for pipes will not be measured for payment. Backfill material needed to complete backfill above natural ground and around pipes that extend above natural ground will be measured and payment will be made under applicable earthwork items. When specified, flowable fill will be measured and paid for in accordance with Section 710.

(g) Plugging and stubbing of pipes will not be measured for payment.

(h) Cleaning existing pipes will be measured by the length of pipe cleaned and accepted.

(i) Concrete collars will be measured per each.

701.13 PAYMENT.

(a) Payment for pipe will be made at the contract unit price per linear foot (lin m) of the types and sizes specified.

When plastic pipe is specified on the plans or elected to be used by the contractor, payment will be made at the contract unit price per linear foot (lin m) of the types and sizes specified in accordance with the payment schedule of Table 701-1.

Table 701-1
Payment Schedule for Plastic Pipe

Percent Payment	Stage of Completeness
75	After placement and backfill has been completed
25	After the pipe has met vertical deflection requirements in accordance with Subsection 701.09(a)

(b) Payment for fabricating pipe tees, elbows and other fittings will be made at the contract unit price per each fitting.

(c) When unstable conditions are encountered, the additional excavation will not be measured for payment; however, the additional materials furnished and placed for the pipe foundation will be measured and paid for as follows:

(1) Granular Materials: Payment will be made under the embankment item. The net section volume of the materials will be multiplied by 3 to determine the pay volume. When the contract does not include a pay item for embankment, payment will be made in accordance with Subsection 104.02.

(2) Bedding Material: Measurement and payment will be made in accordance with Section 726. When the contract does not include a pay item for bedding material, payment will be made in accordance with Subsection 104.02.

(d) Payment for cleaning existing pipes will be made at the contract unit price per linear foot (lin m).

(e) Payment for concrete collars will be made at the contract unit price per each.

Payment will be made under:

Item No.	Pay Item	Pay Unit
701-01	Cross Drain Pipe (Size & Type)	Linear Foot (Lin m)
701-02	Cross Drain Pipe Arch (Size & Type)	Linear Foot (Lin m)
701-03	Storm Drain Pipe (Size & Type)	Linear Foot (Lin m)
701-04	Storm Drain Pipe Arch (Size & Type)	Linear Foot (Lin m)
701-05	Side Drain Pipe (Size)	Linear Foot (Lin m)
701-06	Side Drain Pipe Arch (Size)	Linear Foot (Lin m)
701-07	Yard Drain Pipe (Size)	Linear Foot (Lin m)
701-08	Relaying Pipe	Linear Foot (Lin m)
701-09	Fabricating Pipe Fittings	Each
701-10	Reinforced Concrete Pipe (Extension)	Linear Foot (Lin m)
701-11	Reinforced Concrete Pipe Arch (Extension)	Linear Foot (Lin m)
701-12	Corrugated Metal Pipe (Extension)	Linear Foot (Lin m)
701-13	Corrugated Metal Pipe Arch (Extension)	Linear Foot (Lin m)

701-14	Cleaning Existing Pipes	Linear Foot (Lin m)
701-15	Concrete Collar	Each
701-16	Plastic Pipe (Extension)	Linear Foot (Lin m)

SECTION 704 – GUARD RAIL:

Subsection 704.03 – General Construction Requirements (01/05), Pages 368 and 369.

Add the following to Heading (d), Guard Rail End Treatments.

All end treatments shall bear a label indicating the manufacturer and exact product name of the end treatment along with its assigned NCHRP 350 test level. This label shall resist weathering and shall be permanently affixed to the railing in such a way as to be readily visible.

SECTION 706 – CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING:

All Subsections within Section 706 (04/08), Pages 375 – 377.

Delete Section 706, Concrete Walks, Drives and Incidental Paving and substitute the following.

SECTION 706
CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING

706.01 DESCRIPTION. This work consists of furnishing and constructing portland cement concrete walks, handicapped curb ramps, drives and incidental paving slabs in accordance with these specifications and in conformity with lines, grades and dimensions shown on the plans or established.

706.02 MATERIALS. Materials shall comply with the following Section or Subsections.

Portland Cement Concrete (Class M)	901
Joint Filler	1005.01(c)
Reinforcing Steel	1009.01
Curing Materials	1011.01

706.03 CONSTRUCTION REQUIREMENTS.

(a) Excavation: Excavation shall be made to required depth and width. The top of the subgrade shall be shaped and compacted to a firm, even surface conforming to the section shown on the plans. Unsuitable material shall be removed and disposed of in accordance with Subsection 202.02 and replaced with approved material at no direct pay.

(b) Forms: Forms shall be of wood or metal and shall extend the full depth of concrete. Forms shall be straight, clean and of sufficient strength to resist the pressure of concrete. Bracing of forms shall be such that forms remain in horizontal and vertical alignment until their removal.

Concrete may be placed by slip-form methods. Slip-formed concrete shall be placed with an approved machine designed to spread, vibrate, consolidate and finish concrete in one pass of the machine in such manner that minimum hand finishing is necessary. Sliding forms shall be

rigidly held together to prevent spreading of forms. After the passing of the side forms there shall be no noticeable slumping of concrete.

(c) Subgrade: The subgrade shall be thoroughly moistened immediately prior to placing concrete.

(d) Placing and Finishing: Concrete shall be placed on the subgrade, struck off to required thickness and tamped sufficiently to bring the mortar to the surface. The surface shall be finished with a wood float or steel trowel followed by brushing to a slightly rough finish. Joints and edges shall be rounded with an edging tool having a 1/4-inch (6 mm) radius.

(e) Joints:

(1) Expansion Joints: Expansion joints shall be filled with 1/2 inch (13 mm) thick preformed expansion joint filler. Expansion joints shall be installed at maximum 100-foot (30 m) intervals, and between intersecting paving and any fixed structure such as a building, bridge or curbing, and between intersecting paving and the handicapped curb ramps. Expansion joint material shall extend for the full width and depth of paving.

(2) Weakened Plane: Weakened planes shall be formed by a jointing tool or other acceptable means. Weakened planes shall extend into concrete for at least 1/4 of the depth and shall be approximately 1/8 inch (3 mm) wide.

a. Walks: Spacing of weakened planes for walks shall be equal to the width of walk.

b. Drives: A longitudinal weakened plane shall be formed along the centerline of drives more than 16 feet (5 m) wide, and transverse weakened planes shall be formed at not more than 16-foot (5 m) intervals.

c. Incidental Paving: Weakened planes for incidental paving shall be formed at intervals not exceeding 30 times the thickness of the concrete in length or width. Incidental paving poured adjacent to jointed concrete shall be jointed to match existing joints, with intermediate joints formed as necessary not to exceed the maximum joint spacing.

(3) Construction Joints: Construction joints shall be formed around manholes, utility poles, etc., extending into paving and 1/4 inch (6 mm) thick preformed expansion joint filler shall be installed in these joints.

(4) Tie-ins: Tie-ins of existing concrete shall be made by full depth sawing at no direct pay.

(f) Curing: Concrete shall be cured in accordance with Subsection 601.10.

(g) Detectable Warning Surface for Handicap Ramps and At-Grade Sidewalk Intersections: Sidewalks, when intersecting with roadways, shall be equipped with a detectable warning surface system consisting of raised truncated domes as a transition between the sidewalk and the street as required by the Americans with Disabilities Act, 28 CFR Part 36, ADA Standards for Accessible Design.

Detectable warnings (truncated domes) shall be installed on the ramp surface over the full width of the ramp throat for a distance of 24 inches (600 mm) in the direction of travel from the back of the curb. Detectable warnings (truncated domes) shall also be installed on at-grade sidewalks intersecting with roadways for a distance of 36 inches (900 mm) in the direction of travel from the end of the sidewalk. Truncated domes shall be laid out on a square grid in order to allow enough space for wheelchairs to roll between the domes.

Light reflectance of the truncated domes and the underlying surface must meet the 70 percent contrast requirement of ADAAG.

706.04 MEASUREMENT. Quantities of concrete walks, drives and incidental paving slabs for payment will be the design quantities as specified on the plans and adjustments thereto. Design quantities will be adjusted if the engineer makes changes to adjust to field conditions, if design errors are proven or if design changes are made. Design areas are based on the horizontal dimensions shown on the plans. Excavation, backfill, reinforcing steel and joint materials will not be measured for payment.

Handicapped curb ramps, including the detectable surface warning system, will be measured per each.

Detectable surface warning systems for at-grade sidewalk intersection will not be measured for payment.

706.05 PAYMENT. Payment for concrete walks, drives and incidental paving will be made on a lot basis at the contract unit price per square yard (sq m), adjusted in accordance with the following provisions. Payment for each lot will be made in accordance with Table 901-6. Size, sampling, and testing of each concrete lot shall be in accordance with the Materials Sampling Manual.

Payment for handicapped curb ramps, including the detectable surface warning system, will be made by each and shall include, but not limited to, curb transitions, detectable warning system, gutter, landing and base.

Payment will be made under:

Item No.	Pay Item	Pay Unit
706-01	Concrete Walk (inch (mm) Thick)	Square Yard (Sq m)
706-02	Concrete Drive (inch (mm) Thick)	Square Yard (Sq m)
706-03	Incidental Concrete Paving (inch (mm) Thick	Square Yard (Sq m)
706-04	Handicapped Curb Ramps	Each

SECTION 713 – TEMPORARY TRAFFIC CONTROL:

Subsection 713.06 – Pavement Markings (08/06), Pages 400 – 403.

Delete Table 713-1, Temporary Pavement Markings and substitute the following.

Table 713-1
Temporary Pavement Markings[1,2]

		Two-lane Highways	Undivided Multilane Highways	Divided Multilane Highways
SHORT TERM	ADT<1500; or ADT>1500 and time<3 days	Lane lines 4-foot (1.2 m) tape on 40-foot (12 m) centers; with "Do Not Pass" and "Pass With Care" signs as required		
	ADT>1500; Time>3 days and<2 weeks	Lane lines 4-foot (1.2-m) tape on 40-foot (12-m) centers with no passing zone markings		
	All ADT's with time <2 weeks		Lane lines 4-foot (1.2m) tape on 40-foot (12 m) centers; double yellow centerline	Lane lines 4-foot (1.2 m) tape on 40-foot (12 m) centers
LONG TERM	All ADT's with time >2 weeks	Standard lane lines, no-passing zone markings, legends and symbols and when pavement width is 22 feet (6.7 m) or greater, edge lines	Standard lane lines, centerlines, edge lines, and legends and symbols	Standard lane lines, centerlines, edge lines, and legends and symbols.

[1]No-passing zones shall be delineated as indicated whenever a project is open to traffic.
[2]On all Asphaltic Surface Treatments that are open to traffic and used as a final wearing course or as an interlayer, temporary pavement markings (tabs) on 20-foot (6 m) centers shall be used, in lieu of the 4-foot (1.2 m) tape, on 40-foot (12 m) centers.

SECTION 729 – TRAFFIC SIGNS AND DEVICES:

Subsection 729.02 – Materials (04/08), Pages 456 and 457.

Delete the contents of Heading (a), Sign and Marker Sheeting, and substitute the following.

(a) Sign and Marker Sheeting: Sheeting material for sign panels, delineators, barricades and other markers shall comply with Section 1015. All permanent signs shall meet the requirements of ASTM D 4956, Type X.

Subsection 729.04, Fabrication of Sign Panels and Markers (04/08), Pages 458 – 460.

Delete the third paragraph of Heading (c), Sheeting Application and substitute the following.

ASTM D 4956 Type X reflective sheeting shall be applied with an orientation determined by the engineer to obtain the optimum entrance angle performance. Fabricated vertical splices in ASTM D 4956 Type X reflective sheeting will be allowed only when the horizontal dimension of the sign face or attached shield is in excess of the maximum manufactured width of the sheeting. Fabricated vertical splices in ASTM D 4956 Type X reflective sheeting will also be allowed when the specified orientation will create excessive sheeting waste.

SECTION 804 – DRIVEN PILES:

Subsection 804.08 – Construction Requirements (04/07), Pages548 – 554.

Delete the first sentence of Heading (a), Preboring and substitute the following.

Preboring by augering, wet-rotary drilling, or other methods used to facilitate pile driving will not be permitted unless specified in the plans or allowed by the engineer.

Delete the first sentence of Heading (b), Jetting and substitute the following.

Jetting will not be permitted unless allowed in the plans or allowed by the engineer.

SECTION 901 – PORTLAND CEMENT CONCRETE:

Subsection 901.06 – Quality Control of Concrete (08/06), Pages 726 – 731.

Add the following to the contents of Heading (b), Quality Control Tests.

The contractor shall be responsible for monitoring the components (cement, mineral and chemical admixtures, aggregates) in their mix to protect against any changes due to component variations. As component shipments arrive, the contractor shall verify slump, air content and set time by testing at ambient temperatures. The contractor shall make adjustments to the mix design to rectify any changes which would adversely affect constructability, concrete placement or the specifications. The contractor shall submit test results to the Department for review each day of paving. Testing to validate component consistency will be documented on the control logs. Conformance or variation in mix parameters (workability, set times, air content, etc.) shall be noted on the control logs. The contractor shall provide a copy of the proposed testing plan to the engineer for record. Acceptance of the plan does not relieve the contractor's responsibility for consistency.

Subsection 901.08 – Composition of Concrete (12/05), Pages 732 – 734.

Add the following to Heading (a).

The blended cement containing up to 50 percent of grade 100 or grade 120 ground granulated blast-furnace slag must be in compliance with Subsection 1001.04 for portland blast-furnace slag cement.

SECTION 1001 – HYDRAULIC CEMENT:

Subsection 1001.01 – Portland Cement (09/07). Page 749.

Delete the contents of this subsection and substitute the following.

1001.01 PORTLAND CEMENT. Portland cement shall be from an approved source listed in QPL 7 and shall comply with AASHTO M 85.

Alkali content calculated as sodium oxide equivalent shall not exceed 0.60 percent by weight for all types of cement.

SECTION 1003 – AGGREGATES:

Subsection 1003.02 – Aggregates for Portland Cement Concrete and Mortar (07/07), Pages 763 – 766.

Delete the contents of Heading (c), Aggregates for Types B and D Pavements, and substitute the following.

(c) Aggregates for Types B and D Pavements: For the combined aggregates for the proposed portland cement concrete pavement mix, the percent retained based on the dry weight (mass) of the total aggregates shall meet the requirements of Table 1003-1A for the type of pavement specified in the plans. Additionally, the sum of the percents retained on any two adjacent sieves so designated in the table shall be at least 12 percent of the total combined aggregates. The maximum amounts by weight (mass) of deleterious materials for the total aggregate shall be the same as shown in Subsection 1003.02(b).

Table 1003-1A
Aggregates for Types B and D Pavements

U.S. Sieve	Metric Sieve	Percent Retained of Total Combined Aggregates	
		Pavement Type	
		Type B	Type D
2 1/2 inch	63 mm	0	0
2 inch	50 mm	0	0-20
1 1/2 inch	37.5 mm	0-20	0-20
1 inch	25.0 mm	0-20	5-20
3/4 inch	19.0 mm	5-20	5-20
1/2 inch	12.5 mm	5-20	5-20
3/8 inch	9.5 mm	5-20	5-20
No. 4	4.75 mm	5-20	5-20
No. 8	2.36 mm	5-20	5-20
No. 16	1.18 mm	5-20	5-20
No. 30	600 µm	5-20	5-20
No. 50	300 µm	0-20	0-20
No. 100	150 µm	0-20	0-20
No. 200	75 µm	0-5	0-5
Note: For the sieves in the shaded areas, the sum of any two adjacent sieves shall be a minimum of 12 percent of the total combined aggregates.			

Each type of aggregate to be used in the proposed mixture shall be sampled and tested individually. The percent of total combined aggregates retained shall be determined mathematically based on the proportions of the combined aggregate blend. All gradation calculations shall be based on percent of dry weight (mass).

SECTION 1005 – JOINT MATERIALS FOR PAVEMENTS AND STRUCTURES:

Subsection 1005.04 – Combination Joint Former/Sealer (11/05), Pages 782 and 783.

Delete Heading (a) and substitute the following.

(a) Description: This joint former/sealer is intended for use in simultaneously forming and sealing a weakened plane in portland cement concrete pavements.

The material shall consist of an elastomeric strip permanently bonded either mechanically or chemically at the top of each of two rigid plastic side frames and covered with a removable plastic top cap. Side frames shall be of such configuration that when the sealer is inserted into plastic concrete and vibrated, a permanent bond forms between side frames and concrete.

Delete Heading (b)(1) and substitute the following.

(1) Elastomer: The elastomer strip portion of the material shall be manufactured from vulcanized elastomeric compound using polymerized chloroprene or thermoplastic vulcanizate as the base polymer, and shall comply with the following requirements:

Property	ASTM Test Method	Requirements	
		Polymerized Chloroprene	Thermoplastic Vulcanizate
Tensile Strength, kPa, Min.	D 412	12,400	7,400
Elongation at Break, % Min.	D 412	200	400
Hardness, Shore A	D 2240	65 ± 10	65 ± 10
Properties after Aging, 70 h @ 100°C	D 573		
Tensile Strength, % Loss, Max.		20	20
Elongation, % loss, Max.		25	25
Hardness, pts. increase, Max.		10	10
Ozone Resistance, 20% strain or bentloop, 300 pphm in air, 70 h @ 40°C	D 1149	no cracks	no cracks
Oil Swell, IRM 903, 70 h @ 100°C, wt change, % Max.	D 471	45	75

Delete Headings (b)(2) and (b)(3) and substitute the following:

(2) Bond of Elastomer to Plastic: The force required to shear the elastomer from the plastic shall be a minimum of 5.0 pounds per linear inch (90 g/mm) of sealer when tested in accordance with DOTD TR 636.

(3) Bond of Plastic to Cement Mortar: This bond will be evaluated and shall meet the following requirements:

The force required to separate the cement mortar from the plastic shall be a minimum of 5.0 pounds per linear inch (90 g/mm) of sealer when tested in accordance with DOTD TR 636.

SECTION 1006 – CONCRETE AND PLASTIC PIPE:

Subsection 1006.09 – Plastic Yard Drain Pipe (06/07), Page 789.

Delete the contents of Subheading (a)(3), Ribbed Polyvinyl Chloride Pipe (RPVCP) and substitute the following.

Ribbed Polyvinyl Chloride Pipe (RPVCP): Ribbed Polyvinyl Chloride Pipe shall comply with ASTM F 794, Series 46 or ASTM F 949 (46 psi).

SECTION 1013 – METALS:

Subsection 1013.09 – Steel Piles (08/06) Page 822.

Delete the title and references to "Steel Piles" in this subsection and substitute "Steel H Piles".

SECTION 1015 – SIGNS AND PAVEMENT MARKINGS:

Subsection 1015.04 – Sign Panels (05/07), Pages 832 and 833.

Delete the contents of Heading (a), Permanent Sign Panels and substitute the following.

(a) Permanent Sign Panels: Flat panels shall be aluminum sheets or plates complying with ASTM B 209, Alloy 6061-T6 or Alloy 5052-H38. Extruded aluminum panels shall comply with ASTM B 221 (ASTM B 221M), Alloy 6063-T6 and after fabrication, have a flatness equal to or less than 0.031 inch per foot of length and 0.004 inch per inch of width.

Subsection 1015.05 - Reflective Sheeting (04/08), Pages 833 – 838.

Delete the contents of this subsection and substitute the following.

1015.05 REFLECTIVE SHEETING.

(a) Permanent and Temporary Standard Sheeting: Reflective sheeting shall be one of the following standard types as specified on the plans and complying with ASTM D 4956 except as modified herein. Permanent warning, regulatory, guide and supplemental guide sign sheeting shall meet the requirements of ASTM D 4956 Type X. Reflective sheeting for temporary signs and devices shall meet the requirements of ASTM D 4956 Type III except as noted in Subsection 1015.05(f). Reflective sheeting shall be an approved product listed in QPL 13.

Type III - A high-intensity retroreflective sheeting that is typically encapsulated glass-bead retroreflective material.

Type VI - An elastomeric high-intensity retroreflective sheeting without adhesive. This sheeting is typically a vinyl microprismatic retroreflective material.

Type X - A super high-intensity retroreflective sheeting having highest retroreflectivity characteristics at medium distances. This sheeting is typically an unmetalized microprismatic retroreflective element material.

(b) Fluorescent Pink Retroreflective Sheeting: Signs for temporary control of traffic through incident management areas shall be Type VI fluorescent pink retroreflective sheeting and shall comply with the MUTCD. Temporary traffic control signs for incident management shall be placed to notify motorists of upcoming incidents on the roadway, and shall be removed from public view once the incident has been managed. Physical properties shall comply with ASTM D 4956. Photometric properties shall be as follows.

(1) Retroreflectivity: Minimum Coefficients of Retroreflection shall be as specified in Table 1015-1.

Table 1015-1
Coefficients of Retroreflection for Fluorescent Pink Sheeting[1]

Observation Angle, degrees	Entrance Angle, degrees	Fluorescent Pink
0.2	-4	100
0.2	+30	40
0.5	-4	40
0.5	+30	15

[1]Minimum Coefficient of Retroreflection (R_A) (cd $lx^{-1}m^{-2}$)

(2) Color and Daytime Luminance: Color Chromaticity Coordinates and Daytime Luminance Factors shall be as specified in Table 1015-2.

Table 1015-2
Fluorescent Pink Color Specifications Limits (Daytime)

Chromaticity Coordinates (corner points) [1]								Luminance Factor, min.
1		2		3		4		Y%
x	y	x	y	x	y	x	y	25
0.450	0.270	0.590	0.350	0.644	0.290	0.536	0.230	

[1]The four pairs of chromaticity coordinates measured with CIE 2° Standard Observer and 45/0 (0/45) geometry and CIE D65 Standard Illuminant.

(c) Adhesive Classes: The adhesive required for retroreflective sheeting shall be Class 1 (pressure sensitive) as specified in ASTM D 4956.

(d) Accelerated Weathering: Reflective sheeting, when processed, applied and cleaned in accordance with the manufacturer's recommendations shall perform in accordance with the accelerated weathering standards in Table 1015-3.

Table 1015-3
Accelerated Weathering Standards[1]

Type	Retroreflectivity[2]				Colorfastness[3]	
	Orange/ Fluorescent Orange		All colors, except orange/Fluorescent Orange		Orange/ Fluorescent Orange	All colors, except orange/Fluorescent Orange
III	1 year	80[4]	3 years	80[4]	1 year	3 years
III (for drums)	1 year	80[4]	1 year	80[4]	1 year	1 year
VI	1/2 year	50[5]	1/2 year	50[5]	1/2 year	1/2 year
X	1 year	80[6]	3 years	80[6]	1 year	3 years

[1]At an angle of 45° from the horizontal and facing south in accordance with ASTM G 7 at an approved test facility in Louisiana or South Florida.
[2]Percent retained retroreflectivity of referenced table after the outdoor test exposure time specified.
[3]Colors shall conform to the color specification limits of ASTM D 4956 after the outdoor test exposure time specified.
[4]ASTM D 4956, Table 8.
[5]ASTM D 4956, Table 13.
[6]ASTM D 4956, Table 4.

(e) Expected Sign Life Data and Performance: The sheeting manufacturer shall supply expected retroreflectivity service life curves for each of the following sign sheeting colors: white, green, blue, brown, red, and yellow. The service life curves shall be plots of the 95 percent expected life plotted on an x-y graph with life years on the x-axis and retroreflectivity on the y-axis. The expected life shall account for worst case installations, equivalent to an installation in South Louisiana with the sign facing to the South. The sheeting manufacturer shall also supply a table of expected life values taken from the service life curves for Revision Number 2 to the 2003 Edition of the MUTCD minimum reflectivity requirements published in the Federal Register on December 21, 2007. Reflective sheeting for signs, when processed, applied and cleaned in accordance with the manufacturer's recommendations shall perform outdoors in accordance with the performance standards in Table 1015-4.

Table 1015-4
Reflective Sheeting Performance Standards

Type	Retroreflectivity[1] -- Durability[2]				Colorfastness[3]
	Orange/ Fluorescent Orange		All colors, except orange/Fluorescent Orange		
III	3 years	80[4]	10 years	80[4]	3 years
X	3 years	80[5]	7years	80[5]	3 years

[1]Percent retained retroreflectivity of referenced table after installation and the field exposure time specified.
[2]All sheeting shall maintain its structural integrity, adhesion and functionality after installation and the field exposure time specified.
[3]All colors shall conform to the color specification limits of ASTM D 4956 after installation and the field exposure time specified.
[4]ASTM D4956, Table 8.
[5]ASTM D 4956, Table 4.

(f) Temporary Signs, Barricades, Channelizing Devices, Drums and Cones: Reflective sheeting for temporary signs, barricades and channelizing devices, shall meet the requirements of ASTM D 4956, Type III except that temporary warning construction signs used on the mainline of freeways and expressways shall be fluorescent orange and meet the requirements of ASTM D 4956, Type X.

Reflective sheeting for vertical panels shall meet the requirements of ASTM D 4956, Type III.

Reflective sheeting for drums shall be a minimum of 6 inches (150 mm) wide and shall meet the requirements of ASTM D 4956, Type III, and the Supplementary Requirement S2 for Reboundable Sheeting as specified in ASTM D 4956. Reflective sheeting for traffic cone collars shall meet the requirements of ASTM D 4956, Type III or Type VI.

(g) Sheeting Guaranty. The contractor shall provide the Department with a guaranty from the sheeting manufacturer stating that if the retroreflective sheeting fails to comply with the performance requirements of this subsection, the sheeting manufacturer shall do the following:

Table 1015-5
Manufacturer's Guaranty-Reflective Sheeting

Type	Manufacturer shall restore the sign face in its field location to its original effectiveness at no cost to the Department if failure occurs during the time period[1] as specified below		Manufacturer shall replace the sheeting required to restore the sign face to its original effectiveness at no cost to the Department if failure occurs during the time period[1] as specified below
	Orange/Fluorescent Orange	All colors, except orange/Fluorescent Orange	All colors, except orange/Fluorescent Orange
III	<3 years	<7 years	7-10 years
X	<3 years	<5 years	5-7 years

[1] From the date of sign installation.

Replacement sheeting for sign faces, material, and labor shall carry the unexpired guaranty of the sheeting for which it replaces.

The sign fabricator shall be responsible for dating all signs with the month and year of fabrication at the time of sign fabrication. This date shall constitute the start of the guaranty obligation period.

Subsection 1015.11 - Preformed Plastic Pavement Marking Tape (06/07), Pages 842 – 844.

Delete the contents of this subsection and substitute the following.

1015.11 PREFORMED PLASTIC PAVEMENT MARKING TAPE.

(a) General: Preformed plastic pavement marking tape shall be approved products listed on QPL 64 and shall comply with ASTM D4505 Retroreflectivity Level I or Level II, or DOTD Intersection Grade (as specified below), except as modified herein. The marking tape shall be Class 2 or 3. The type and color shall be in accordance with the plans and the MUTCD.

(b) Thickness: All preformed plastic pavement marking tape shall have a minimum overall thickness of 0.060 inches (1.5 mm) when tested without the adhesive.

(c) Friction Resistance: The surface of the Retroreflectivity Level II preformed plastic pavement marking tape shall provide a minimum frictional resistance value of 35 British Polish Number (BPN) when tested according to ASTM E303. The surface of the Retroreflectivity Level I and DOTD Intersection Grade preformed plastic pavement marking tape shall provide a minimum frictional resistance value of 45 BPN when tested according to ASTM E303. Values for the Retroreflectivity Level I material with a raised surface pattern as defined in ASTM D4505 are calculated by averaging values taken at downweb and at a 45 degrees angle from downweb.

(d) Retroreflective Requirements: The preformed plastic pavement marking tape shall have the minimum initial specific luminance values shown in Table 1015-7 when measured in accordance with ASTM D 4061.

Table 1015-7
Specific Luminance of Preformed Plastic Tape

Type	Observation Angle, degrees	Entrance Angle, degrees	Specific Luminance (mcd/sq m/lx)	
			White	Yellow
Retroreflectivity Level I	1.05	88.76	500	300
DOTD Intersection Grade	1.05	88.76	375	250
Retroreflectivity Level II	1.05	88.76	250	175

(e) Durability Requirements: The DOTD Intersection Grade preformed plastic pavement marking tape shall show no appreciable fading, lifting or shrinkage for a least 12 months after placement when placed in accordance with the manufacturer's recommended procedures on pavement surfaces having a daily traffic count not to exceed 15,000 ADT per lane.

The Retroreflectivity Level I preformed plastic pavement marking tape shall show no appreciable fading, lifting or shrinkage for a least 4 years after placement for longitudinal lines and at least 2 years after placement for symbols and legends.

The Retroreflectivity Level I preformed plastic pavement marking tape shall also retain the following reflectance values for the time period detailed in Table 1015-8.

Table 1015-8
Retained Specific Luminance for Retroreflectivity Level I
Preformed Plastic Pavement Marking Tape

Time	Observation Angle, degrees	Entrance Angle, degrees	Specific Luminance (mcd/sq m/lx)	
			White	Yellow
1 year	1.05	88.76	400	240
4 years (2 years for symbols and legend)	1.05	88.76	100	100

(f) Plastic Pavement Marking Tape Guaranty (DOTD Intersection Grade and Retroreflectivity Level I): If the plastic pavement marking tape fails to comply with the performance and durability requirements of this subsection within 12 months for DOTD Intersection Grade and 4 years for Retroreflectivity Level I, the manufacturer shall replace the plastic pavement marking material at no cost to the Department.

SECTION 1020 – TRAFFIC SIGNALS:

Subsection 1020.01 – Traffic Signal Heads (06/07), Pages 873 – 884.

Delete the contents of Heading (a), General Requirements and substitute the following.

(a) General Requirements: Traffic signal sections, beacon sections and pedestrian signal sections shall be of the adjustable type. Materials and construction of each section shall be the same.

Signals shall be constructed for either 8 or 12-inch (200 mm or 300 mm) lens in accordance with the plans. Signal sections shall have three to five sections per face and beacon sections have only one section per face. Signal sections and associated brackets shall be finished inside and out with two coats of high grade dark olive green enamel, color number 14056 according to Federal Standard No. 595b with each coat independently baked. Visors shall be coated green on the outside and black on the inside. Edges shall be deburred and smooth with no sharp edges.

Subsection 1020.04 – Poles for Traffic Signal Systems (06/07), Pages 890 – 894.

Delete the sixth paragraph of Heading (a), Pedestal Support Signal Poles, and substitute the following.

Pedestals shall be finished with at least one coat of rustproofing primer, applied to a clean surface and one coat of dark olive green enamel, color number 14056 according to Federal Standard No. 595b.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

SECTION 741
WATER DISTRIBUTION SYSTEM

The 2006 Standard Specifications are amended to include this Section 741.

741.01 DESCRIPTION: This work consists of furnishing the necessary materials and installing, relocating and adjusting water distribution systems in accordance with these specifications and in conformity with the lines and grades shown on the plans or established by the engineer.

741.02 MATERIALS: A certificate of compliance from the manufacturer showing the chemical and physical properties of the materials used and conformance with the specifications will be required for each item.

(a) Cast Iron and Ductile Iron Pipe:

(1) Cast Iron Pipe: Cast iron pipe shall be made of grey cast iron and shall conform to ANSI A 21.6 (centrifugally cast in metal molds) or A 21.8 (centrifugally cast in sand lined molds). Iron in the pipe shall have a bursting tensile strength of at least 21,000 psi (145 MPa) and the pipe shall have a ring modulus of rupture of at least 45,000 psi (310 MPa).

(2) Ductile Iron Pipe: Ductile iron pipe shall consist of ductile cast iron and shall conform to ANSI A 21.51 (centrifugally cast in metal or sand lined molds).

(3) Fittings: Fittings for cast iron or ductile iron pipe shall conform to ANSI A 21.10.

(4) Coating and Lining of Pipe: Cast iron and ductile iron pipe and fittings shall be asphalt or vinyl coated outside, as specified, and cement lined and seal coated inside in accordance with ANSI A 21.4.

(5) Joints: Pipe joints shall conform to ANSI A 21.11 with the following criteria used for joint selection.

a. Mechanical Joint (Type III) with alloy steel bolts and nuts.
b. Boltless single gasket push-on joint.
c. Submarine, flexible, ball and socket joint.
d. Flanged joint.

Pipe shall be installed with joint types (a) or (b) for mains under normal service conditions, joint type (c) for stream or canal crossings and when specified, joint type (d) for above ground installations such as pumps.

(b) Gate Valves and Valve Boxes:

(1) Valves shall be non-rising stem, iron body, bronze mounted, double-disk gate valves conforming to AWWA C 500. Valves shall have mechanical joint ends except that valves used with 2 inches (50 mm) or less diameter pipe, or galvanized iron pipe, shall have threaded ends. Valves shall open counterclockwise and shall be operated by nut method. Operating nuts shall conform to that used by the utility system.

(2) Valve boxes shall be approved cast iron, 2-piece, heavy roadway type. Valve boxes for 12 inches (300 mm) or larger valves shall be of the 3-piece type with oval base. The term "water" shall be cast on each valve box cover.

(c) Tapping Sleeves and Valves: Tapping sleeves shall be the split- sleeve, mechanical joint type. Gate valve connections shall be mechanical joint. Sleeves shall meet the requirements for cast iron fittings except the cement lining will not be required. Minimum working pressure shall be that specified for the system.

(d) Fire Hydrants: Fire hydrants shall conform to AWWA Designation: C 502 for 3-way type hydrants with working pressure of 150 psi (1.0 MPa). Hydrants shall be compression type and inlet connections shall be mechanical joint bell. Two 2 1/2 inches (65 mm) hose nozzles and one 4 1/2 inches (115 mm) pumper nozzle shall be provided; hose connections shall have National Standard threads. Hydrants shall have bronze seal rings, automatic drain openings and 0-ring seals. Minimum valve openings of 4 inches shall be provided. Hydrants shall contain a breakaway feature at ground level consisting of breakaway bolts or flange and breakaway coupling on the rod. Main valve and valve seat shall be replaceable without digging up the hydrant. The hydrant exterior shall be painted with approved enamel and shall be repainted after installation (color: yellow).

(e) Plastic Pipe: Plastic pipe and tubing shall be polyvinyl chloride or polyethlene pipe and tubing.

(1) Polyvinyl chloride (PVC) pipe shall conform to ASTM D 2241 and be pressure rated at 200 psi (1.3 MPa) minimum. The pipe shall be made from polyvinyl chloride compounds conforming to Class 12454B (Type 1, Grade 1), ASTM D 1784.

(2) Polyethylene (PE) pipe and tubing shall conform to ASTM D 2239 (pipe) and D 2737 (tubing). Pipe or tubing shall be rated for use with water at 73.4°F (23°C) at a hydrostatic design stress of 630 psi (4.3 MPa). Pipe or tubing shall be made from polyethylene plastics conforming to Type III, Grade 3, ASTM D 1248.

(3) When specified, Schedule 40 PVC shall be in accordance with ASTM D 1785, Schedule 40, PVC 1120.

(4) Plastic pipe and fittings must bear the seal or "NSF" mark of the National Sanitation Foundation or other approved marking indicating approval for use in transporting potable water.

(5) Welding Solvent and Solvent Thinner shall conform to ASTM D 2564.

(f) Galvanized Steel Pipe: These pipes and fittings shall be galvanized steel seamless pipe conforming to ASTM A 53 (A 53M), standard weight. Fittings shall be malleable iron conforming to ANSI B 16.3 except the nipples and couplings shall be the same material as the pipe. Fittings shall be galvanized in accordance with ASTM A 53 (A 53M).

(g) Copper Pipe or Tubing: This pipe shall conform to ASTM B 88, Type K. Copper fittings shall be of the cast pattern or wrought pattern. Fittings for rigid copper pipe shall be of the solder joint type. Fittings for conceded soft draw pipe may be the flared mechanical type. Unions shall be the ground joint type.

(h) Detection Wire for Plastic Pipe: An approved electrically conductive insulated wire or tape shall be installed directly over and on the center of the plastic pipe for its entire length within highway right-of-way to facilitate locating of line with an electronic pipe locator. Wire or tape must be connected to all fixtures and appurtenances.

741.03 CONSTRUCTION REQUIREMENTS:

(a) General:

(1) Handling: Pipe, fittings and other materials shall be carefully handled to prevent breakage or damage, especially to the cement mortar lining in pipe and fittings.

(2) Existing Underground Utilities and Obstructions: All water lines, gas lines, telephone conduits, drainage structures, etc. shall be located and protected by the contractor during construction.

(b) Trench Excavation:

(1) Excavation: Excavation shall conform to Subsections 701.03 and 701.04, and the following requirements.

a. Protection of Excavation: Sheeting, shoring and hand excavation shall be used as necessary for protection of the work. Sheeting shall be withdrawn as backfilling is being done, except where the engineer directs that the sheeting and shoring be left in place, or where the engineer permits the sheeting to be left in place. The contractor shall cut off any sheeting left in place at least 18 inches (450 mm) below finished grade. Sheeting and bracing will not be paid for directly.

b. Trench Depth: Minimum bury (depth from grade to top of pipe) under pavement or surfacing shall be 4 feet (1.2 m). Minimum bury under ditches and in other non-paved areas shall be 2 feet (0.6 m).

c. Bell Holes: Bell holes of ample depth and width shall be excavated in pipe trenches at each joint location to permit the joint to be properly made and the pipe barrel to rest firmly on the trench bottom.

(2) Under Pavement:

a. Removing Pavement: The contractor shall remove existing pavement as necessary for trench excavation. Pavement shall be cut back from the top edges of trenches at least 24 inches (0.6 m) on each side of the trench. The requirements of Sections 510 and 602 shall be followed for removing and replacing pavement except that no separate payment will be made for this work.

b. Jacking and Boring: The contractor may elect to jack or bore pipe under existing pavement where practical; however, separate payment for jacked or bored pipe will only be made when jacking or boring of pipe is specified. Jacked or bored pipe shall be installed in accordance with Section 728.

(c) Connection to Existing Mains: Connection to existing mains shall be made with appropriate fittings as shown on the plans or as directed. When it is necessary to make such connections under pressure (i.e., when normal water service must be maintained) a tapping sleeve and valve shall be used. The contractor shall furnish the valve tapping machine and other equipment required.

(1) Location: The contractor shall, before opening pipe line trenches, locate the points where connections are to be made to existing pipe lines and shall uncover as necessary for the engineer to prescribe the types of connections and fittings to be installed.

(2) Interruption of Service: Connections to existing pipe lines shall be made at such times and in such manner as will meet operating requirements. No cut shall be made in existing lines until permission has been obtained as to time and manner of making cuts and connections.

(d) Laying Water Mains and Appurtenances:

(1) Sequence of Work: Excavation, cleaning, laying, jointing and backfilling shall be kept up as closely as possible. Pipe shall not be left in the trench overnight without completely jointing and capping. The contractor shall backfill and compact the trench as soon as possible after laying, jointing and testing is complete. Each day at the close of work, and when laying is not in progress, the exposed end of the pipe line in the trench shall be closed with an approved barrier of wood or metal. If it is necessary to cover the end of an uncompleted pipe line with backfill, the end of the pipe shall be closed using a satisfactory cap or plug.

(2) Alignment and Gradient: Pipe line alignment and gradient shall be straight, or shall be deflected to follow true curves as nearly as practical. Deflection of pipe lines shall be within the allowable laying deflection angle, both horizontal and vertical.

(3) Installation:

a. Connections: Connections which are made inside roadway shoulders, or curbs and gutters, shall be made with flexible joints.

b. Cutting: Where pipe or special castings are required to be cut, cutting shall be done using pipe cutters.

c. Gate Valves: Gate valves shall be installed and jointed as specified above for water mains. Installation of gate valves shall include valve boxes, where required.

d. Fire hydrants: Hydrants shall be installed and jointed as specified above for water mains. Installation of hydrants shall include vertical extension sections if required, pipe straps, concrete blocking, aggregate drain and backfill.

e. Concrete Blocking: Concrete blocking shall be Class R concrete conforming to Section 901 and shall be formed and poured at the backs of fittings, including elbows, tees, pipe plugs, fire hydrants and other locations shown on the plans or directed by the engineer.

f. Backfilling: Backfilling shall conform to Subsection 701.08 and these requirements.

When testing for leaks in open trenches, backfilling shall not be done until testing has been completed and leaks eliminated.

Where adjacent pavements are to be retained, pavement removed for pipe line trenches shall be replaced in kind or when approved, with equal or better material. After backfilling, the contractor shall maintain a satisfactory riding surface until repaving is completed. No separate payment will be made for replaced pavement.

g. Testing and Disinfection:

1. Testing: When a section of pipe is approved for testing, the contractor shall furnish all materials, equipment and labor to properly carry out this operation. This shall include a test pump and means of accurate measurement of water necessary to maintain required pressure during testing. The contractor shall furnish, install and remove any temporary bulkheads, flanges, plugs and corporation stops at high points in pipe lines and at the test pump, as necessary.

A. Sequence of Testing: When conditions permit, pipe lines shall be tested before the trench is backfilled and before service lines are installed; however, if high pressure testing must be done after service lines are in place, they shall be shut off at the corporation stops.

After necessary joints, bulkheads, etc. have been installed, corporation stops, if no other means can be provided, shall be placed in the high points of the pipe line and at the pump as required, and the pipe blown free from air according to accepted procedure.

B. Test Pressure: Test pressure shall be 50 psi (0.3 MPa) higher than the designated class pressure of pipe and fittings. Leakage shall not exceed 15 gallons per inch (1.4 L/mm) of pipe diameter per mile (km) per 24 hours. The minimum test period shall be 2 hours. However, if additional testing is required the contractor shall perform the procedure at his expense. When service lines cannot be isolated (i.e., shut off from the section to be tested), or other conditions exist where pressure testing as described above may cause damage, the line may be tested under normal operating pressure when approved. This work shall be done in open trenches, where possible, and testing repeated until leaks are eliminated.

C. Leaks and Defective Materials or Workmanship: Joints which leak shall be remade. Cracked, broken or defective materials shall be replaced. Defective workmanship shall be corrected. After the above conditions have been corrected, the line shall be retested as described above until the line passes the requirements. The contractor shall receive no additional compensation for the corrections or retesting.

2. Disinfection: Pipe lines and appurtenances, both existing and new which are the responsibility of the contractor, shall be disinfected before being placed in service. The disinfection process may be done in conjunction with the pressure test and shall be in accordance with AWWA C 601 and these requirements.

A solution of calcium hypochlorite or sodium hypochlorite (such as HTH, Perchloron, Chlorox, etc.) liquid chlorine or other approved disinfectant shall be used to obtain a solution of at least 50 ppm of available chlorine throughout the pipe system. No chlorine shall be applied to pipe as lines are being laid.

For this work, the contractor shall furnish suitable corporation stops, plugs or caps for the pipe, injection pumps, pipe connections and other equipment, and all labor required, at no additional cost to the Department.

While disinfectant is being applied to any section of the system, the water shall be allowed to escape at all extremities of this section until an orthotolidine test shows a deep orange color. The disinfectant shall be allowed to remain in the pipe at least 6 hours and tests shall be made to determine that a chlorine residual of at least 5 ppm remains. If there is not sufficient residual chlorine, disinfection shall be repeated. After disinfection, lines shall be thoroughly flushed to remove the chlorine. If bacteriological tests indicate that the lines are not free of coliform organisms, the disinfection procedure shall be repeated on that part of the system until proven to be free of contamination.

Disinfection shall be made in the presence of the engineer. The contractor shall notify the engineer at least 48 hours prior to the time lines are to be disinfected. The contractor shall furnish taps, corporation stops, tubing and faucets, and furnish labor to obtain samples of water from disinfected lines. These shall be collected and submitted to a biological laboratory of the State Board of Health. Copies of laboratory reports shall be submitted to the engineer. Disinfection shall be considered acceptable when reports indicate lines to be free of contamination. Lines shall be disinfected as soon after completion of testing as possible.

When tests are completed, test risers shall be removed and corporation stops plugged with an approved brass plug.

(e) Laying Service Lines and Appurtenances: Except as modified below, construction and installation of service lines shall conform to the requirements for laying water mains. Service lines shall include complete installation of the new pipe from the water main to the final location of the meter, or to such points as directed to connect with existing or future service lines and abutting property. Installation of service line pipe shall include necessary connections, including unions, valves, fittings, corporation stops, goosenecks where permitted, and curb stops.

(1) Excavation and Backfill:

a. Excavation: Excavation shall be done as specified elsewhere herein.

b. Backfill: Backfilling shall be done as specified herein after leakage test has been made under normal operation pressure in open trenches and leaks eliminated.

(2) Laying and Jointing: Jointing of copper pipe, galvanized steel pipe and plastic pipe shall be in accordance with standard practice for jointing water pipe and approved installation methods. Plastic pipe shall be placed in the trench to allow at least 1 percent additional length of pipe for thermal connection, and selected backfill material shall be placed and compacted to 6 inches above pipe before proceeding with normal backfill operations.

(f) Relocations, Adjustments and Removals:

(1) Water Valves, including valve boxes and fire hydrants, shall be relocated, adjusted to grade or removed as shown on the plans or as designated. The contractor shall protect all parts during the removing and relocating operation and shall replace all items lost or damaged at his expense. All lead or composition joints shall be melted out and each joint disconnected before being removed from the trench.

Relocated gate valves or fire hydrants shall be installed as specified for new gate valves or fire hydrants. Concrete blocking will be required for fire hydrants. Leakage tests shall be performed as specified above. Backfilling shall be done as specified herein. Concrete blocking and any additional pipe required in resetting the gate valve or fire hydrant at its new location will be paid for separately. Valve boxes, when they exist, shall be considered to be a part of the valve assembly and shall be removed with the valve.

(2) Existing water meters and boxes shall be relocated as shown on the plans or as designated. Relocation shall include removing the existing meter, meter box, all required pipe, unions and appurtenances, storage, protection where necessary, and reinstalling the meter, meter box and curb stop in the existing service line as directed. The contractor, with the engineer, shall inspect each meter before its removal to determine its condition. If a meter is defective, the contractor will be furnished a replacement meter for the installation.

(3) Existing water service lines shall be adjusted to grade, by excavating for, and lowering or raising the existing service lines and backfilling at the same location, as shown on the plans or directed. Any new materials or fittings required for the adjustment shall be furnished by the contractor without additional compensation. He shall also make any required changes in the connection at the main which are the result of this work. All leaks and damage caused by the contractor's operations shall be repaired at his expense. If a water meter is to be retained at the same location in an existing service line that is to be adjusted, the meter and box shall also be adjusted to proper grade. No additional compensation will be allowed for this adjustment.

(4) Existing water meter and water valve boxes shall be lowered or raised to the grade established on the plans or by the engineer.

(5) Existing house connections shall be adjusted as required. New pipe and fittings required to adjust house connections shall be equal in quality to that of the existing installation and meet requirements of the utility and code.

741.04 MEASUREMENT:

(a) Water Mains: Water mains will be measured by the linear foot (lin m) along the center, parallel to the slope of the pipe, from end to end of each installation through all fittings.

(b) Fittings: Pipe fittings will be considered subsidiary to the water line in which they are used.

(c) Gate valves, including boxes when required, will be measured by the number of each size installed.

(d) Tapping sleeve and valve assembly will be measured by the number of each size installed.

(e) Fire hydrants will be measured by the number of each installed.

(f) Service Lines: Service lines will be measured by the linear foot (lin m) from end to end, and from center of lines to ends of branches, including valves and fittings.

(g) Relocating Fire Hydrants, Water Valves and Water Meters: Existing fire hydrants, water valves and water meters will be measured by the number of each relocated, including relocation of boxes for such valves and meters.

(h) Adjusting Meter Boxes and Valve Boxes: Existing meter boxes and valve boxes adjusted to grade in their original locations will be measured by the number adjusted.

(i) Removal of Water Valves and Fire Hydrants: Existing water valves, including boxes when necessary, and fire hydrants will be measured by the number of each removed.

(j) Excavation and Backfill: Excavation and backfill will not be measured for payment.

(k) Concrete Blocking: Concrete blocking will be measured by the cubic yard (cu m) of concrete used.

(l) Adjusting Water House Connections: This item will be measured by the number of house connections adjusted.

(m) Adjusting Service Lines to Grade: This item will be measured in linear feet (lin m) of service line pipe lowered or raised, including valves, fittings, meters, boxes and other appurtenances. Measurement will be made from end to end of adjusted service line.

(n) Incidentals: Pavement removed and replaced, including sawing, testing, disinfection and detection wire for plastic pipe, will not be measured for payment.

(o) Casing will be measured by the linear foot (lin m) along the center, parallel to the slope of the casing.

(p) Butterfly valves, including boxes when required, will be measured by the number of each installed.

(q) Double strap saddles will be measured by the number of each installed.

741.05 PAYMENT:

(a) Water main pipe will be paid for per linear foot (lin m) for each size of pipe installed, which includes fittings, excavation, backfilling, removal and replacement of pavement, testing, sterilizing, and laying pipe in casing when required.

(b) Gate valves will be paid for per each, which includes box if required, and joint connections.

(c) Tapping sleeve and valve assemblies will be paid for per each, which includes joint connections.

(d) Fire hydrants will be paid for per each, which includes vertical extensions, joint connections, pipe straps and stone drain.

(e) Service line pipe will be paid for per linear foot (lin m), which includes excavation, backfilling, removal and replacement of pavement, testing, sterilizing, corporation and curb stops, goosenecks where required, fittings, jointing, connecting to the main, and laying pipe in casing when required.

(f) Relocating fire hydrant will be paid for per each, which includes crushed stone drain.

(g) Relocating water valve including box will be paid for per each, which includes excavation and backfill.

(h) Relocating water meter including box will be paid for per each set, which includes excavation and backfill.

(i) Adjusting water house connections will be paid for per each, which includes necessary adjustment of service lines not exceeding 20 linear feet (6.1 lin m) per house connection, and required new pipe and fittings.

(j) Adjusting water service lines in excess of 20 linear feet (6.1 lin m) per house connection will be paid for per linear foot (lin m) of adjusted service line, which includes required new pipe and fittings.

(k) Adjusting meter boxes and valve boxes to grade will be paid for per each.

(l) Removal of water valves will be paid for per each, which includes valve box.

(m) Removal of fire hydrants will be paid for per each.

(n) Concrete blocking will be paid for per cubic yard (cu m).

(o) Casing will be paid for per linear foot (lin m), which includes excavation, backfilling, and removal and replacement of pavement.

(p) Butterfly valves will be paid for per each size, which includes box if required, and joint connections.

(q) Double strap saddles will be paid for per each, which includes joint connections.

(r) Payment will be made at the contract unit prices under:

Item No.	Pay Item	Pay Unit
741-01	Water Main (Size & Type)	Linear Foot (Lin m)
741-02	Gate Valve (Size)	Each
741-03	Tapping Sleeve and Valve Assembly (Size)	Each
741-04	Fire Hydrant	Each
741-05	Water Service Line (Size & Type)	Linear Foot (Lin m)
741-06	Relocating Fire Hydrant	Each
741-07	Relocating Water Valve	Each
741-08	Relocating Water Meter	Each
741-09	Adjusting Water House Connections	Each
741-10	Adjusting Water Service Lines	Linear Foot (Lin m)
741-11	Adjusting Water Valve and Meter Box	Each
741-12	Removing Water Valve Including Box	Each
741-13	Removing Fire Hydrant	Each
741-14	Concrete Blocking	Cubic Yard (Cu m)
741-15	Casing (Size & Type)	Linear Foot (Lin m)
741-16	Butterfly Valve (Size)	Each
741-17	Double Strap Saddle (Size)	Each

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

FEMALE AND MINORITY PARTICIPATION IN CONSTRUCTION

The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all federal and federally assisted construction contracts or subcontracts in excess of $10,000 to be performed in geographical areas designated by the director of OFCCP. Execution of the contract by the successful bidder and any subsequent subcontracts will be considered the contractor's and subcontractor's commitment to the EEO provisions contained in this notice.

NOTICE OF REQUIREMENT 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 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:

AREA	PARISH OR COUNTY	GOAL (%)
	FEMALE PARTICIPATION	
-	All Covered Areas	6.9
	MINORITY PARTICIPATION (UNDER NEW ORLEANS PLAN)	
-	* See Note Below	20 to 23
	MINORITY PARTICIPATION (NOT UNDER NEW ORLEANS PLAN)	
1	Jefferson LA, Orleans LA, St. Bernard LA, St. Tammany LA	31.0
2	Assumption LA, Lafourche LA, Plaquemines LA, St. Charles LA, St. James LA, St. John the Baptist LA, Tangipahoa LA, Terrebonne LA, Washington LA, Forrest MS, Lamar MS, Marion MS, Pearl River MS, Perry MS, Pike MS, Walthall MS	27.7
3	Ascension LA, East Baton Rouge LA, Livingston LA, West Baton Rouge, LA	26.1
4	Concordia LA, East Feliciana LA, Iberville, LA, Pointe Coupee LA, St. Helena LA, West Feliciana LA, Adams MS, Amite MS, Wilkinson, MS	30.4
5	Lafayette LA	20.6
6	Acadia LA, Evangeline LA, Iberia LA, St. Landry LA, St. Martin LA, St. Mary LA, Vermillion LA	24.1
7	Calcasieu LA	19.3
8	Allen LA, Beauregard LA, Cameron LA, Jefferson Davis LA, Vernon LA	17.8
9	Grant LA, Rapides LA	25.7
10	Avoyelles LA, Bienville LA, Bossier LA, Caddo LA, Claiborne LA, DeSoto LA, Natchitoches LA, Red River LA, Sabine LA, Webster LA, Winn LA	29.3
11	Ouachita LA	22.8
12	Caldwell LA, Catahoula LA, East Carroll LA, Franklin LA, Jackson LA, LaSalle LA, Lincoln LA, Madison LA, Morehouse LA, Richland LA, Tensas LA, Union LA, West Carroll LA,	27.9

*These goals apply only to those contractors signatory to the New Orleans Plan and only with respect to those trades which have unions participating in said Plan. The New Orleans Plan Covered Area is as follows: The parishes of Orleans, Jefferson, St. Bernard, St. Tammany, St. Charles, St. John the Baptist, Plaquemines, Washington, Terrebonne, Tangipahoa (that area east of the Illinois Central Railroad), Livingston (that area southeast of the line from a point off the Livingston and Tangipahoa Parish line adjacent from New Orleans and Baton Rouge), St. James (that area southeast of a line drawn from the Town of Gramercy to the point of intersection of St. James, Lafourche and Assumption Parishes), and Lafourche.

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 is also subject to the goals for both its federally involved and non-federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR 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 established for the geographical area where the contract resulting from this solicitation is to be performed. 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 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 purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Regional Administrator of the Office of Federal Contract Compliance Programs (555 Griffin Square Building, Dallas, TX 75202) within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and geographical area in which the contract is to be performed.

4. As used in this Notice and in the contract, the "covered area" is that area shown in the foregoing table in which the project is located.

The following Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) shall be included in, and shall be a part of, all solicitations for offers and bids on all federal and federally assisted construction contracts or subcontracts in excess of $10,000. Execution of the contract by the successful bidder and any

subsequent subcontracts will be considered the contractor's and subcontractor's commitment to the EEO provisions contained in these Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
   c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941.
   d. "Minority" includes:
      (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
      (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
      (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
      (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. If the contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, he shall include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.

3. If the contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is required to comply with his obligations under the EEO clause, and to make good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractor or subcontractors toward a goal in an

approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals.

4. The contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any OFCCP office or from federal procurement contracting officers. The contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women, shall excuse the contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.

7. The contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the contractor's compliance with these specifications will be based on his effort to achieve maximum results from its actions. The contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The contractor, where possible, will assign 2 or more women to each construction project. The contractor shall ensure that all foremen, superintendents and other on-site supervisory personnel are aware of and carry out the contractor's obligation to maintain such a working environment with specific attention to minority or female individuals working at such sites or in such facilities.
b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to

community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the contractor has taken.

d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman set by the contractor, or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the contractor in meeting his EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendent, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the contractor's EEO policy externally by including it in ny advertising in the news media, including minority and female news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than 1 month prior to the date for the acceptance of

applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above describing the openings, screening procedures and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women, and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling its obligations under 7a through 7p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and female workforce participation, makes a good faith effort to meet his goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the contractor. The obligation to comply, however, is the contractor's and failure of such a group to fulfill an obligation shall not be a defense for the contractor's noncompliance.

9. A goal for minorities and a separate goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the contractor may be in violation of the Executive Order if a group is employed

in a substantially disparate manner (for example, even though the contractor has achieved its goals for women generally, the contractor may be in violation of the Executive Order if a minority group of women in underutilized).

10. The contractor shall not use the goals or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.

11. The contractor shall not enter into a subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The contractor, in fulfilling his obligations under these specifications, shall implement specific affirmative actions steps, at least as extensive as the standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors will not be required to maintain separate records.

15. Nothing herein shall be construed as a limitation on the application of other laws which establish different standards of compliance or on the application of requirements for hiring of local or other area residents (e.g., those under the Pubic Works Employment Act of 1977 and the Community Development Block Grant Program).

16. In addition to the reporting requirements set forth elsewhere in this contract, the contractor and subcontractors holding subcontracts (not including material suppliers) in excess of $10,000

shall submit for every month of July during which work is performed, employment data as contained under Form FHWA-1391 in accordance with instructions included thereon.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SUPPLEMENTAL SPECIFICATIONS

SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES

1. General

a. Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Orders 11246 and 11375 are set forth in Required Contract Provisions (Form FHWA-1273) and these Supplemental Specifications which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal Aid Highway Act of 1968. The requirements set forth herein shall constitute the specific affirmative action requirements for project activities under this contract and supplement the EEO requirements set forth in the Required Contract Provisions.

b. The contractor shall work with the Department and the Federal Government in carrying out EEO obligations and in their review of his activities under the contract.

c. The contractor and all his subcontractors holding subcontracts not including material suppliers, of $10,000 or more, shall comply with the following minimum specific requirement activities of EEO. The EEO requirements of Executive Order 11246, as set forth in the Federal-Aid Policy Guide 23 CFR 230A, are applicable to material suppliers as well as contractors and subcontractors. The contractor shall include these requirements in every subcontract of $10,000 or more with such modification of language as necessary to make them binding on the subcontractor.

2. EEO Policy

The contractor shall accept as his operating policy the following statement which is designed to further the provision of EEO to all persons without regard to their race, color, religion, sex or national origin, and to promote the full realization of EEO through a positive continuing program:

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 or national origin. 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 on-the-job training.

3. EEO Officer

The contractor shall designate and make known to the Department an EEO Officer who shall have the responsibility for and must be capable of effectively administering and promoting an active contractor EEO program and who must be assigned adequate authority and responsibility to do so.

4. Dissemination of Policy

a. 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, shall be made fully cognizant of and shall 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 shall be taken as a minimum:

(1) Periodic meetings of supervisory and personnel office employees shall be conducted before the start of work and then at least once every 6 months, at which time the contractor's EEO policy and its implementation shall be reviewed and explained. The meetings shall be conducted by the EEO Officer or other knowledgeable company official.

(2) All new supervisory or personnel office employees shall be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the contractor's EEO obligations within 30 days after their reporting for duty with the contractor.

(3) All personnel who are engaged in direct recruitment for the project shall be instructed by the EEO Officer or appropriate company official in the contractor's procedures for locating and hiring minority group employees.

b. To make the contractor's EEO policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the contractor shall take the following actions:

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

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

5. Recruitment

a. When advertising for employees, the contractor shall include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements shall be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

b. The contractor shall, 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, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the contractor shall, through his EEO Officer, 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.

If 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 equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements has 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 shall encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants shall be discussed with employees.

6. 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 or national origin. The following procedures shall be followed.

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

c. The contractor shall periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor shall promptly take corrective 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 shall promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, shall attempt to resolve such complaints, and shall 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 shall inform every complainant of all of his avenues of appeal.

7. Training and Promotion

a. The contractor shall 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 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. If the Supplemental Specifications for Job Training are provided under this contract, this subparagraph will be superseded as indicated in Attachment 2.

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

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

8. Unions

If the contractor relies in whole or in part upon unions as a source of employees, the contractor shall use his 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 shall include the procedures set forth below:

a. The contractor shall 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 shall 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 or national origin.

c. The contractor shall 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 Department and shall set forth what efforts have been made to obtain such information.

d. If the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor shall, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex or national origin, making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor 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.) If the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these specifications, such contractor shall immediately notify the Department.

9. Subcontracting

a. The contractor shall use his best efforts to solicit bids from and utilize minority group subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from the Department.

b. The contractor shall use his best efforts to ensure subcontractor compliance with their EEO obligations.

10. Records and Reports

a. The contractor shall keep such records as necessary to determine compliance with the contractor's EEO obligations. The records kept by the contractor shall indicate:

(1) the number of minority and nonminority group members and women employed in each work classification on the project,

(2) the progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractors who rely in whole or in part on unions as a source of their work force),

(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 minority group subcontractors with meaningful minority and female representation among their employees.

b. All such records must be retained for a period of 3 years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the Department and the Federal Highway Administration.

c. The contractor shall submit an annual report to the Department each July for the duration of the project, indicating the number of minority, women and nonminority group employees currently engaged in each work classification required by the contract work. This information shall be reported on Form PR-1391. If job training is required, the contractor shall furnish Form DOTD 03-37-0014.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

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 take corrective 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 the time 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.

(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 of progress, 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 wage determination 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 shall set out accurately and completely all of the information 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 apprentice, trainee, and helper) 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 provide all 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 representation 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 and supplemented;

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. 92-604), 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 requirements.

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 knowingly rendered 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.

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

REQUIRED CONTRACT PROVISIONS FOR DBE PARTICIPATION IN FEDERAL AID CONSTRUCTION CONTRACTS (DBE GOAL PROJECT)

A. AUTHORITY AND DIRECTIVE: The Code of Federal Regulations, Title 49, Part 26 (49 CFR Part 26) as amended and the Louisiana Department of Transportation and Development's (DOTD) Disadvantaged Business Enterprise (DBE) Program are hereby made a part of and incorporated by this reference into this contract. Copies of these documents are available, upon request, from DOTD Compliance Programs Office, P. O. Box 94245, Baton Rouge, LA 70804-9245.

B. POLICY: It is the policy of the DOTD that it shall not discriminate on the basis of race, color, national origin, or sex in the award of any United States Department of Transportation (US DOT) financially assisted contracts or in the administration of its DBE program or the requirements of 49 CFR Part 26. The DOTD shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of US DOT assisted contracts. The DBE program, as required by 49 CFR Part 26 and as approved by US DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification of failure to carry out the approved DBE program, the US DOT may impose sanctions as provided for under 49 CFR Part 26 and may in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C.3801 et seq.).

C. DBE OBLIGATION: 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 Part 26 in the award and administration of US DOT 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 the DOTD deems appropriate.

The preceding policy and DBE obligation shall apply to this contract and shall be included in the requirements of any subcontract. Failure to carry out the requirements set forth therein shall constitute a breach of contract and, after notification by DOTD, may result in termination of the contract, a deduction from the contract funds due or to become due the contractor or other such remedy as DOTD deems appropriate. The contractor is encouraged to use the services offered by banks in the community which are owned and controlled by minorities or women when feasible and beneficial. The term DBE is inclusive of women business enterprises (WBE) and all obligations applicable to DBE shall apply to firms certified and listed as WBE.

D. FAILURE TO COMPLY WITH DBE REQUIREMENTS: All contractors and subcontractors are hereby advised that failure to carry out the requirements set forth above shall constitute a breach of contract and, after notification by DOTD may result in rejection of the bid; termination of the contract; a deduction from the contract funds due or to become due the contractor; or other such remedy as DOTD deems appropriate. Failure to comply with the DBE requirements shall include but not be limited to failure to meet the established goal and/or failure to submit documentation of good faith efforts; failure to exert a reasonable good faith effort (as determined by DOTD) to meet established goals; and failure to realize the DBE participation set forth on approved Form CS-6AAA and attachments. Failure to submit Form CS-6AAA and attachments and/or reasonable good faith efforts' documentation within the specified time requirements will result in the Department taking the actions specified in Heading G(6) below. The utilization of DBE is in addition to all other equal opportunity requirements of the contract. The contractor shall include the provisions in Sections B, C and D of these provisions in subcontracts so that such provisions will be binding upon each subcontractor, regular dealer, manufacturer, consultant, or service agency.

E. ELIGIBILITY OF DBE: The DOTD has included as part of the solicitation of bids a current list containing the names of firms that have been certified as eligible to participate as DBE on US DOT assisted contracts. This list is not an endorsement of the quality of performance of the firm but is simply an acknowledgment of the firm's

eligibility as a DBE. This list indicates the project numbers and letting date for which this list is effective. Only DBE listed on this list may be utilized to meet the established DBE goal for these projects.

F. COUNTING DBE PARTICIPATION TOWARD DBE GOALS: DBE participation toward attainment of the goal will be credited on the basis of total subcontract prices agreed to between the contractor and subcontractors for the contract items or portions of items being sublet as reflected on Form CS-6AAA and attachments, in accordance with the DOTD DBE Program, and the following criteria.

(1) Credit will only be given for use of DBE that are certified by the Louisiana Unified Certification Program. Certification of DBE by other agencies is not recognized.

(2) The total value of subcontracts awarded for construction and services to an eligible DBE is counted toward the DBE goal provided the DBE performs a commercially useful function. The contractor is responsible for ensuring that the goal is met using DBE that perform a commercially useful function.

The contractor shall operate in a manner consistent with the guidelines set forth in the DOTD DBE Program. A commercially useful function is performed when a DBE is responsible for the execution of a distinct element of work by actually managing, supervising, and performing the work in accordance with standard industry practices except when such practices are inconsistent with 49 CFR Part 26 as amended, and the DOTD DBE Program, and when the DBE receives due compensation as agreed upon for the work performed. To determine whether a DBE is performing a commercially useful function, the DOTD shall evaluate the work subcontracted in accordance with the DOTD DBE Program, industry practices and other relevant factors. When an arrangement between the contractor and the DBE represents standard industry practice, if such arrangement erodes the ownership, control or independence of the DBE, or fails to meet the commercially useful function requirement, the contractor will not receive credit toward the goal.

(3) A DBE prime contractor may count only the contract amount toward DBE participation for work he/she actually performs and for which he/she is paid. Any subcontract amounts awarded to certified DBE by a DBE prime will also be credited toward DBE participation provided the DBE subcontractor performs a commercially useful function.

(4) A contractor may count toward the DBE goal 100 percent of verified delivery fees paid to a DBE trucker. The DBE trucker must manage and supervise the trucking operations with its own employees and use equipment owned by the DBE trucker. No credit will be counted for the purchase or sale of material hauled unless the DBE trucker is also a DOTD certified DBE supplier. No credit will be counted unless the DBE trucker is an approved subcontractor.

(5) A contractor may count toward the DBE goal that portion of the dollar value with a joint venture equal to the percentage of the ownership and control of the DBE partner in the joint venture. Such crediting is subject to a favorable DOTD review of the joint venture agreement to be furnished by the apparent low bidder before award of the contract. The joint venture agreement shall include a detailed breakdown of the following:

a. Contract responsibility of the DBE for specific items of work.

b. Capital participation by the DBE.

c. Specific equipment to be provided to the joint venture by the DBE.

d. Specific responsibilities of the DBE in the control of the joint venture.

e. Specific manpower and skills to be provided to the joint venture by the DBE.

f. Percentage distribution to the DBE of the projected profit or loss incurred by the joint venture.

(6) A contractor may count toward the DBE goal only expenditures for materials and supplies obtained from DBE suppliers and manufacturers in accordance with the following:

a. The DBE supplier assumes actual and contractual responsibility for the provision of materials and supplies.

b. The contractor may count 100 percent of expenditures made to a DBE manufacturer provided the DBE manufacturer operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the contractor.

c. The contractor may count 60 percent of the expenditures to DBE suppliers who are regular dealers but not manufacturers, provided the DBE supplier performs a commercially useful function in the supply process including buying the materials or supplies, maintaining an inventory, and selling materials regularly to the public. Dealers in bulk items such as steel, cement, aggregates and petroleum products are not required to maintain items in stock, but they must own or operate distribution equipment. The DBE supplier shall be certified as such by DOTD.

d. A DBE may not assign or lease portions of its supply, manufactured product, or service agreement without the written approval of the DOTD.

(7) A contractor may count toward the DBE goal reasonable expenditures to DBE firms including fees and commissions charged for providing a bona fide service; fees charged for hauling materials unless the delivery service is provided by the manufacturer or regular dealer as defined above; and fees and commissions for providing any bonds or insurance specifically required for the performance of the contract.

(8) The contractor will not receive credit if the contractor makes direct payment to the material supplier. However, it may be permissible for a material supplier to invoice the contractor and DBE jointly and be paid by the contractor making remittance to the DBE firm and material supplier jointly. Prior approval by DOTD is required.

(9) The contractor will not receive credit toward the DBE goal for any subcontracting arrangement contrived to artificially inflate the DBE participation.

G. AWARD DOCUMENTATION AND PROCEDURE: This project has specific DBE goal requirements set forth in the Special Provision for DBE Participation in Federal Aid Construction Contracts. The bidder by signing this bid certifies that:

(1) The goal for DBE participation prescribed in the special provisions shall be met or exceeded and arrangements have been made with certified DBE or good faith efforts made to meet the goal will be demonstrated.

(2) Affirmative actions have been taken to seek out and consider DBE as potential subcontractors. Bidders shall contact DBE to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain, on file, proper documentation to substantiate their good faith efforts.

(3) Form CS-6AAA and "Attachment to Form CS-6AAA" and, if necessary, documentation of good faith efforts shall be submitted within 10 business days following the opening of bids to the DOTD Compliance Programs Office. Submittals shall be personally delivered and date and time stamped into the DOTD Compliance Programs Office by the close of business, 10 business days after opening of bids; or mailed to the DOTD Compliance Programs Office by certified mail, return receipt requested and post marked by the 10th business day after the opening of bids. A business day is defined as a normal working day of DOTD.

Should a bidder protest or appeal any matter regarding the bidding or award of a contract in accordance with Subsection 102.13 of the 2006 Standard Specifications (Subsection 102.13 of the 2000 Louisiana Standard Specifications) after the scheduled time of bid opening, the Compliance Programs Section will immediately suspend the ten day requirement for submission of the CS-6AAA and Attachments until further notice and will notify all parties involved of the suspension. Once the protest has been resolved the

Compliance Programs Section will notify the low bidder and issue a date for submission of the CS-6AAA and Attachments.

All attachments to Form CS-6AAA shall include:

a. The names of DBE subcontractors that will actually participate in meeting the contract goal; and

b. A complete description of the work to be performed by the DBE including the specific items or portions of items of work, quantities, and unit price(s) of each item; and

c. The total dollar value of each item that can be credited toward the contract goal; and

d. Any assistance to be provided to the DBE; and

e. The original signature of each DBE and the contractor attesting that negotiations are in progress and that it is the intention of the parties to enter into a subcontract within 60 calendar days from the time the contract is finalized between the contractor and DOTD.

It shall be the bidder's responsibility to ascertain the certification status of designated DBEs. An extension of time for submittal of Form CS-6AAA and Attachments will not be granted beyond the stated time. Questionable technical points will be cleared with the DOTD Compliance Programs Office within the time period allowed. If the documentation required is not provided in the time and manner specified, DOTD will take the actions specified in Heading (6) below.

(4) If the apparent low bidder is not able to meet the DBE goal, the DBE firms that can meet a portion of the goal shall be listed on the form CS-6AAA. Form CS-6AAA and attachments shall be completed and submitted in accordance with Heading (3) above 10 business days after opening of bids. Form CS-6AAA shall indicate the DBE participation which has been secured along with documentation of good faith efforts. The apparent low bidder shall document and submit justification stating why the goal could not be met and demonstrate the good faith efforts as shown in Section J.

The DOTD's evaluation of good faith efforts in the pre-award stage will focus only on efforts made prior to submittal of the bid. For consideration, good faith efforts shall include the requirements listed in these provisions as well as other data the contractor feels is relevant.

(5) Form CS-6AAA and attachments, and documentation of good faith efforts, when appropriate, will be evaluated by DOTD in the selection of the lowest responsible bidder. The information provided shall be accurate and complete. The apparent low bidder's proposed attainment of the DBE goal and/or demonstration of good faith efforts will be considered in the award of the contract.

(6) An apparent low bidder's failure, neglect, or refusal to submit Form CS-6AAA and attachments committing to meet or exceed the DBE goal and/or documentation of good faith efforts, shall constitute just cause for forfeiture of the proposal guarantee and the DOTD rejecting the bid, pursuing award to the next lowest bidder, or re-advertising the project. The original apparent low bidder will not be allowed to bid on the project should readvertisement occur.

The apparent low bidder shall forfeit the proposal guarantee unless the bidder can show that the reason for not meeting the requirements given in these DBE Provisions was beyond the bidder's control. The DOTD DBE Oversight Committee will review the bidder's reasons for not meeting these DBE Provisions and will decide if the reasons are sufficient to allow return of the proposal guarantee.

(7) The bidder has the right to appeal the DOTD's findings and rulings to the DOTD Chief Engineer. The bidder may present information to clarify the previously submitted documentation. The decision rendered by the DOTD Chief Engineer will be administratively final. There shall be no appeal to the US DOT. If the DOTD Chief Engineer does not rule in favor of the original apparent low bidder, the new apparent low bidder shall submit, in detail, its subsequent proposed DBE participation within 14 calendar days after notification.

(8) Agreements between the bidder and the DBE, whereby the DBE agrees not to provide subcontracting quotations to other bidders, are prohibited.

H. POST AWARD COMPLIANCE

(1) If the contract is awarded on less than full DBE goal participation, such award will not relieve the contractor of the responsibility to continue exerting good faith efforts. The contractor shall submit documentation of good faith efforts with requests to sublet prior to approval of subcontracting work being performed on the project.

(2) The contractor shall establish a program which will effectively promote increased participation by DBE in the performance of contracts and subcontracts. The contractor shall also designate and make known to the DOTD a liaison officer who will be responsible for the administration of the contractor's DBE program.

(3) The contractor shall enter into subcontracts or written agreements with the DBE identified on Form CS-6AAA and attachments for the kind and amount of work specified. The subcontracting requirements of the contract will apply. The contractor shall submit copies of subcontracts or agreements with DBE to DOTD upon request.

(4) The contractor shall keep each DBE informed of the construction progress schedule and allow each DBE adequate time to schedule work, stockpile materials, and otherwise prepare for the subcontract work.

(5) At any point during the project when it appears that the scheduled amount of DBE participation may not be achieved, the contractor shall provide evidence demonstrating how the goal will be met.

(6) If the contractor is unable to demonstrate to the DOTD's satisfaction that it failed to achieve the scheduled DBE participation due to reasons other than quantitative underruns or elimination of items contracted to DBE and that good faith efforts have been used to obtain the scheduled contract participation, the DOTD may withhold an amount equal to the difference between the DBE goal and the actual DBE participation achieved as damages.

(7) When the DOTD has reason to believe the contractor, subcontractor, or DBE may not be operating in compliance with the terms of these DBE provisions, to include, but not be limited to the encouragement of fronting, brokering, or not providing a commercially useful function, the DOTD will conduct an investigation of such activities with the cooperation of the parties involved. If the DOTD finds that any person or entity is not in compliance, the DOTD will notify such person or entity in writing as to the specific instances or matters found to be in noncompliance.

At the option of the DOTD, the person or entity may be allowed a specified time to correct the deficiencies noted and to achieve compliance. In the event that the person or entity cannot achieve compliance, or fails or refuses to do so, the DOTD reserves the right to initiate administrative action against the contractor which may include but not be limited to terminating the contract; withholding a percentage of the contractor's next partial payment equal to the shortfall amount until corrective action is taken; or other action the DOTD deems appropriate. The contractor has the right to appeal the DOTD's finding and rulings to the DOTD Chief Engineer.

The contractor may present additional information to clarify that previously submitted. Any new information not included in the original submittal will not be used in the final determination. The decision rendered by the DOTD Chief Engineer will be administratively final.

(8) To ensure that the obligations under subcontracts awarded to subcontractors are met, the DOTD will review the contractor's efforts to promptly pay subcontractors for work performed in accordance with the executed subcontracts. The contractor shall promptly pay subcontractors and suppliers, including DBE, their respective subcontract amount within 14 calendar days after the contractor receives payment from DOTD for the items satisfactorily performed by the subcontractors in accordance with Louisiana Revised Statute 9:2784. The contractor shall provide the DBE with a full accounting to include quantities paid and

deductions made from the DBE's partial payment at the time the check is delivered. Retainage may not be held by the contractor. Delay or postponement of payment to the subcontractor may be imposed by the contractor only when there is evidence that the subcontractor has failed to pay its labor force and suppliers for materials received and used on the project. Delay or postponement of payment must have written approval by the Project Engineer. Failure to promptly pay subcontractors or to release subcontractors' retainage shall constitute a breach of contract and after notification by the DOTD may result in (1) a deduction from the contract funds due or to become due the contractor, (2) disqualification of a contractor as non-responsive, or (3) any other such remedy under the contract as DOTD deems appropriate. All subcontracting agreements made by the contractor shall include the current payment to subcontractors provisions as incorporate in the contract. All disputes between contractors and subcontractors relating to payment of completed work or retainage shall be referred to the DBE Oversight Committee. Members of the DBE Oversight Committee are: the Deputy Chief Engineer,; the DOTD Compliance Programs Director; and a FHWA Division Representative.

(9) The contractor shall meet the requirements of Subsection 108.01 Subletting of Contract, and shall submit DOTD Forms OMF-1A, Request to Sublet and OMF-2A, Subcontractor's EEO Certification. These forms shall be approved by DOTD before any subcontract work is performed.

(10) DOTD reserves the right to withhold any partial payment from the contractor when it is determined that a DBE is not performing a commercially useful function or that achievement of the goal is in jeopardy. Payment may be withheld in the amount of the DBE goal that is in jeopardy until either the contractor submits to DOTD a revised plan for achieving the contract goal and the plan is approved, or the DBE goal amount in question has been met.

(11) The DOTD will monitor the contractor's DBE involvement during the contract, the level of effort by the contractor in meeting or exceeding the goal requirements in the contract, the contractor's attempts to do so, and the efforts in soliciting such involvement. If, at the completion of the project, the contractor has failed to meet the DBE goal and has not demonstrated good faith efforts or obtained a waiver or reduction of the goal, DOTD will withhold an amount equal to the difference between the DBE goal and the actual DBE participation achieved as damages.

I. SUBSTITUTIONS OF DBE FIRMS AFTER AWARD

(1) The contractor shall conform to the scheduled amount of DBE participation.

(2) Contract items designated to be performed by the DBE on Form CS-6AAA and attachments shall be performed by the designated DBE or DOTD approved substitute. Substitutions of named DBE shall be approved in writing by the DOTD Compliance Programs Section. Substituted DBE shall not commence work until the contractor is able to demonstrate that the listed DBE is unable to perform because of default, overextension on other jobs, or other acceptable justification. It is not intended that a contractor's ability to negotiate a more advantageous contract with another subcontractor be considered a valid basis for change. Substitution of DBE will be allowed only when the DBE is unable to perform due to default, overextension on other jobs, or other similar justification. Evidence of good faith efforts exerted by the contractor shall be submitted to DOTD for approval. Pay items of work eliminated from the project will not diminish the contractor's DBE participation.

(3) Under no circumstances will a contractor perform work originally designated to be performed by a DBE without prior written approval from the DOTD Compliance Programs Section.

(4) When a listed DBE is unwilling or unable to perform the items of work specified in the Form CS-6AAA and attachments, the contractor shall immediately notify the DOTD Compliance Programs Section.

When a contractor's request to be relieved of the obligation to use the named DBE results in a DBE Goal shortfall, the contractor shall immediately take steps to obtain another certified DBE to perform an equal amount of allowable credit work or make documented good faith efforts to do so. The new DBE's name and designated work shall be submitted to the DOTD for approval using Form OMF-1A, Request to Sublet, prior to proceeding with the work.

If the contractor is unable to replace a defaulting DBE with another DBE for the applicable item, a good faith effort shall be made to subcontract other items to DBE for the purpose of meeting the goal. The DOTD Compliance Programs Section will determine if the contractor made an acceptable good faith effort in awarding work to DBE firms. Any disputes concerning good faith efforts will be referred to the DBE Oversight Committee. The DOTD Compliance Programs Section may allow a waiver or adjustment of the goal as may be appropriate, depending on individual project circumstances.

J. GOOD FAITH EFFORTS: Good faith efforts are required by the contractor when the DBE goals established for a contract are not met, or at anytime during the contract when achievement of the DBE goal is in jeopardy. It is the contractor's responsibility to provide sufficient evidence for DOTD to ascertain the efforts made. The contractor shall demonstrate good faith efforts to maximize participation by DBE prior to award and during the life of the contract. Good faith efforts include personal contacts, follow-ups and earnest negotiations with DBE. DOTD will consider, at a minimum, the following efforts as relevant, although this listing is not exclusive or exhaustive and other factors and types of efforts may be relevant:

(1) Efforts made to select portions of the work to be performed by DBE in order to increase the likelihood of achieving the stated goal. It is the contractor's responsibility to make a sufficient portion of the work available to subcontractors and suppliers and to select those portions of work or materials consistent with the availability of DBE subcontractors and suppliers to assure meeting the goal for DBE participation. Selection of portions of work are required to at least equal the DBE goal in the contract.

(2) Written notification at least 14 calendar days prior to bid opening which solicits a reasonable number of DBE interested in participation in the contract as a subcontractor, regular dealer, manufacturer, or consultant for specific items of work. The contractor shall provide notice to a reasonable number of DBE that their interest in the contract is being solicited, with sufficient time to allow the DBE to participate effectively. The contractor shall seek DBE in the same geographic area from which it generally seeks subcontractors for a given project. If the contractor cannot meet the goal using DBE from the normal area, the contractor shall expand its search to a wider geographic area.

(3) Demonstrated efforts made to negotiate in good faith with interested DBE for specific items of work include:

a. The names, addresses and telephone numbers of DBE contacted. The dates of initial contact and whether initial solicitations of interest were followed-up personally, by mail, or by phone to determine the DBE interest.

b. A description of the information provided to DBE regarding the nature of the work, the plans and specifications and estimated quantities for portions of the work to be performed.

c. A statement of why additional agreements with DBE were not reached.

d. Documentation of each DBE contacted but rejected and the reasons for rejection. All bids and quotations received from DBE subcontractors whether verbal or written, and the contractor's efforts to negotiate a reasonable price shall be submitted. Rejecting a DBE's bid because it was not the lowest quotation received will not be satisfactory reason without an acceptable explanation of how it was determined to be unreasonable. A statement that the DBE's quotation was more than the contractor's bid price for an item or items will not be acceptable.

e. Copies of all bids and quotations received from DBE subcontractors and an explanation of why they were not used.

f. Scheduling meetings to discuss proposed work or to walk the job-site with DBE.

g. Informing DBE of any pre-bid conferences scheduled by the DOTD.

h. Assisting DBE in obtaining bonding, insurance, or lines of credit required by the contractor.

i. Evidence of DBE contacted but rejected as unqualified, accompanied by reason for rejection based on a thorough investigation of the DBEs capabilities.

j. Any additional information not included above which would aid the DOTD in evaluation of the contractor's good faith efforts.

(4) The following are examples of actions that will not be accepted as justification by the contractor for failure to meet DBE contract goals:

a. Failure to contract with a DBE solely because the DBE was unable to provide performance and/or payment bonds.

b. Rejection of a DBE bid or quotation based on price alone.

c. Failure to contract with a DBE because the DBE will not agree to perform items of work at the unit price bid.

d. Failure to contract with a DBE because the contractor normally would perform all or most of the work in the contract.

e. Rejection of a DBE as unqualified without sound reasons based on a thorough investigation of their capabilities.

f. Failure to make more than mail solicitations.

K. RECORD KEEPING REQUIREMENTS: The contractor shall keep such records as are necessary for the DOTD to determine compliance with the DBE contract obligations. These records shall include the names of subcontractors, including DBE; copies of subcontracts; the type of work being performed; documentation such as canceled checks and paid invoices verifying payment for work, services, and procurement; and documentation of correspondence, verbal contacts, telephone calls, and other efforts to obtain services of DBE. When requested, the contractor shall submit all subcontracts and other financial transactions executed with DBE in such form, manner and content as prescribed by DOTD. The DOTD reserves the right to investigate, monitor and/or review actions, statements, and documents submitted by any contractor, subcontractor, or DBE.

L. REPORTING REQUIREMENTS: The contractor shall submit monthly reports on DBE involvement. At the conclusion of each estimate period the contractor shall submit the Form CP-1A, CONTRACTORS MONTHLY DBE PARTICIPATION, to the project engineer to verify actual payments to DBE for the previous month's reporting period. These reports will be required until all DBE subcontracting activity is complete or the DBE Goal has been achieved. Reports are required regardless of whether or not DBE activity has occurred in the monthly reporting period.

Upon completion of all DBE participation, the contractor shall submit the Form CP-2A, DBE FINAL REPORT, to the DOTD Compliance Programs Section with a copy to the project engineer detailing all DBE subcontract payments. When the actual amount paid to DBE is less than the award amount, a complete explanation of the difference is required. If the DBE goal is not met, documentation supporting good faith efforts shall be submitted. Failure to submit the required reports will result in the withholding of partial payments to the contractor until the reports are submitted. All payments due subcontractors which affect DBE goal attainment, including retainage, shall be paid by the contractor before the DOTD releases the payment/performance/retainage bond.

The DOTD reserves the right to conduct an audit of DBE participation prior to processing the final estimate and at any time during the work.

M. APPLICABILITY OF PROVISIONS TO DBE BIDDERS: These provisions are applicable to all bidders including DBE bidders. The DBE bidder is required to perform at least 50 percent of the work of the contract with its own work force in accordance with the terms of the contract, normal industry practices, and the DOTD DBE Program. If the DBE bidder sublets any portion of the contract, the DBE bidder shall comply with provisions regarding contractor and subcontractor relationships. A DBE prime contractor may count only the contract amount toward DBE participation for work that he/she actually performs and any amounts awarded to other certified DBE subcontractors that perform a commercially useful function.

FORM CS-6AAA
BIDDERS ASSURANCE OF DBE PARTICIPATION

S.P.#	**Contract Amount: $**
F.A.P.#	**DBE Goal Percentage**
Letting Date:	**DBE Goal Dollar Value: $**

By its signature affixed hereto, the contractor assures the DOTD that one of the following situations exists (check only one box):

☐ The project goal will be met or exceeded.
☐ A portion of the project goal can be met, as indicated below. Good faith effort documentation is attached. DBE Goal Participation Amount_____ % $_____.

The contractor certifies that each firm listed is currently on the DBE list as maintained by DOTD and is certified for the items of work shown on the attachment(s). The contractor having assured that the goal for DBE participation prescribed in the special provisions will be met or exceeded, or that the portion of the DBE goal will be met or exceeded, attests that negotiations are in progress or complete and that a subcontract(s) will be executed with the firm(s) listed below within 60 calendar days after award of contract.

NAME OF DBE FIRM(S)	INTENDED SUBCONTRACT PRICE[1]

[1]For supplier list only the value of the subcontract that can be credited toward the DBE goal. This amount shall be equal to the amount shown for the supplier on the Attachment to Form CS-6AAA. Details are listed on the attachment(s) to Form CS-6AAA.

The contractor assessed the capability and availability of named firm(s) and sees no impediment to prevent award of subcontract(s) as described on the attachments.

The contractor shall evaluate the subcontract work or services actually performed by the DBE to ensure that a commercially useful function is being served in accordance with the Required Contract Provisions for DBE Participation in Federal Aid Construction Contracts. The contractor understands that no credit toward the DBE goal will be allowed for DBE that do not perform a commercially useful function. The contractor has a current copy of the DOTD DBE Program Implementation Guide which details the methods of operation that are acceptable on projects containing DBE goals. Copies of this guide may be obtained by calling the DOTD Compliance Programs Section at (225) 379-1382.

NAME OF CONTRACTOR	
AUTHORIZED SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
CONTRACTOR'S DBE LIAISON OFFICER (typed or printed name)	
PHONE NUMBER	
DATE	**TAX ID#**

ATTACHMENT TO FORM CS-6AAA

Contractor shall submit a separate attachment for each DBE listed on Form CS-6AAA.

S.P.#	F.A.P.#
NAME OF DBE	
PHONE #	CONTACT PERSON:

Fully describe the work to be performed (furnish materials and install, labor only, supply only, manufacture, hauling, etc.), quantity, unit price, and dollar value for each item to be subcontracted to the DBE listed below.

ITEM NO.	QUANTITY/UNIT PRICE/DESCRIPTION OF WORK TO BE PERFORMED	$ VALUE

Describe the types of assistance, if any, the contractor will provide to any DBE on this project.

The contractor and DBE subcontractor attest that a subcontract will be executed for the items of work listed above. The contractor acknowledges that it will only receive credit toward the DB goal if the subcontractor performs a commercially useful function. The DBE understands that it is responsible for performing a commercially useful function.

DBE CONTRACTOR'S SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
DATE	TAX ID#
PRIME CONTRACTOR'S SIGNATURE	
TYPED OR PRINTED NAME	
TITLE	
DATE	

06/08

FORM CP-1A
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
CONTRACTOR'S MONTHLY DBE PARTICIPATION

STATE PROJECT NO.	CONTRACTOR:
FEDERAL AID PROJECT NO.	
ESTIMATE NO.	REPORT PERIOD: _____ TO _____

DOTD CERTIFIED DBE SUBCONTRACTOR OR SUPPLIER	ITEMS PERFORMED AND PAID THIS ESTIMATE PERIOD	AMOUNT PAID THIS MONTH[1]	TOTAL PAID TO DATE[1]

[1]For suppliers, list total amount paid and the 60 percent value counted toward the goal.

This report covers the previous estimate period and shall be submitted to the Project Engineer with the current month's pay estimate. Estimates will be withheld until required form is submitted. Questions should be directed to the DOTD Compliance Programs Section at (225) 379-1382.

The Contractor certifies that the above amounts <u>were paid</u> to the listed DBEs and that documentation of these payments is available for inspection.

Project Engineer has reviewed this form. _____ (Signature of Project Engineer).

Authorized Signature	
Typed or Printed Name	
Title	
Phone No.	
Date	

06/08

FORM CP-2A
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DBE FINAL REPORT

STATE PROJECT NO.	DBE GOAL AMOUNT: $	CONTRACTOR:
FEDERAL PROJECT NO.	CONTRACT AMOUNT: $	
PARISH(ES)	LETTING DATE:	

DOTD CERTIFIED DBE SUBCONTRACTOR OR SUPPLIER	ITEMS PERFORMED AND PAID	TOTAL DOLLAR AMOUNT PAID TO SUB OR SUPPLIER (60%)

This is to certify that $_____ has been paid to Disadvantaged Business Enterprise Subcontractors/Suppliers listed above.

Authorized Signature	
Typed or Printed Name	
Title	
Date	

Parish or County _____ State of _____

Subscribed and sworn to, before me, this _____ day of _____, A.D. 20_____

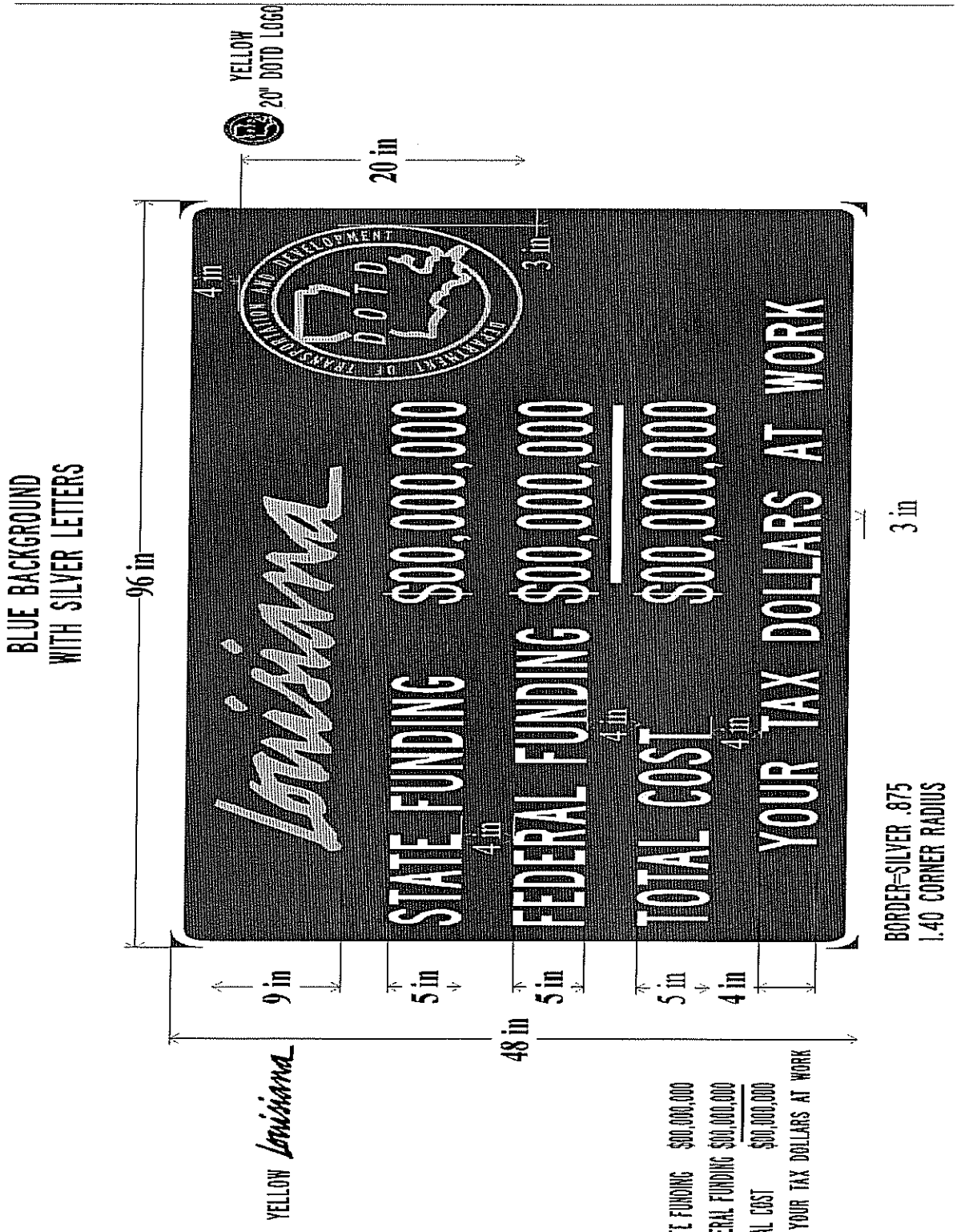
Notary Public _____

My commission expires: _____

06/08

PROJECT SIGN
LA TAX DOLLARS AT WORK
(COLOR ARTWORK FURNISHED UPON REQUEST)

Silver Font – TRAFFICAD C



General Decision Number: LA080012 02/08/2008 LA12

Superseded General Decision Number: LA20070033

State: Louisiana

Construction Types: Highway

Counties: Allen, Assumption, Avoyelles, Beauregard, Bienville, Caldwell, Cameron, Catahoula, Claiborne, Concordia, De Soto, East Carroll, East Feliciana, Evangeline, Franklin, Grant, Iberia, Iberville, Jackson, Jefferson Davis, La Salle, Lincoln, Madison, Morehouse, Natchitoches, Pointe Coupee, Red River, Richland, Sabine, St Helena, St Mary, Tangipahoa, Tensas, Union, Vermilion, Vernon, Washington, West Carroll, West Feliciana and Winn Counties in Louisiana.

HIGHWAY CONSTRUCTION PROJECTS (does not include building structures in rest area projects)

Modification Number	Publication Date
0	02/08/2008

SULA2004-016 08/03/2004

	Rates	Fringes
Carpenter (including formbuilding/formsetting)	$ 11.55	1.85
Cement Mason/Concrete Finisher	$ 11.26	
Electrician (including traffic signal wiring and installation)	$ 12.00	
Ironworker, Reinforcing	$ 10.69	
Laborers		
Asphalt Raker	$ 8.12	
General including landscape/erosion	$ 8.07	
Guardrail	$ 8.22	
Mason Tender	$ 8.46	
Pipelayer	$ 8.19	
Striping/Pavement Marker including paint striping and attachment of reflector buttons	$ 7.91	
Traffic Control including flagger, sign placement, barricades, and cones	$ 7.95	
Piledriverman	$ 11.87	
Power Equipment Operators		
Asphalt Distributor	$ 8.84	
Asphalt Paving Machine	$ 12.23	
Asphalt Screed	$ 10.50	
Asphalt/Aggregate Spreader	$ 10.11	
Backhoe/Excavator	$ 10.96	
Bobcat/Skid Loader	$ 10.33	
Broom Sweeper	$ 8.70	
Bulldozer	$ 11.87	
Concrete Saw	$ 12.46	
Crane	$ 13.63	

Front End Loader.....$ 9.62
Grade Checker.....$ 9.00
Mechanic.....$ 13.67
Milling/Cold Planing
Machine including rotomill
and CMI cutter.....$ 11.65
Motor Grader/Blade.....$ 11.23
MTV/Shuttlebuggy.....$ 10.14
Oiler.....$ 10.20
Post Driver including
guardrails.....$ 12.21
Roller.....$ 9.68
Scraper.....$ 10.93
Stabilizer.....$ 9.85
Trackhoe.....$ 11.92
Tractor.....$ 9.49
Truck drivers
Dump (all types).....$ 8.56
Flatbed.....$ 9.86
Lowboy.....$ 11.02
Pickup including paint truck$ 9.30
Tack.....$ 9.61
Trailer.....$ 10.00
Water.....$ 9.27

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.)

and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

APPENDIX A

EXISTING PAINT ANALYSIS REPORT

August 10, 2005

JN 2451

MEMORANDUM

TO: Modjeski and Masters, Inc.

ATTN: Mr. Lance Borden

FROM: M. J. Beitzel

RE: **LADOTD-MERMENTAU RIVER BRIDGE**
PAINT INSPECTION FINDINGS

The writer met with LADOTD maintenance personnel at the Mermentau River Bridge on July 21, 2005 to evaluate the condition of paint on the referenced structure.

- Information provided by LADOTD personnel.

  Maintenance personnel advised that the bridge had been blast cleaned and painted approximately 9-10 years ago by LADOTD maintenance personnel using a red iron oxide primer and intermediate coat and an aluminum topcoat. It is suspected that MS 285 paint system was used. (MS 285 is an LADOTD maintenance paint specification calcium borosilicate/red iron oxide alkyd paint system consisting of a 2 mil prime coat, (red) and 2 mil intermediate coat tinted with lampblack (red brown) and a 2 mil (aluminum) alkyd topcoat.)

- Information obtained from maintenance records provided by Mr. Gil Geautreau of LADOTD Bridge Maintenance following the site inspection.

  Mr. Geautreau advised that records indicate the bridge was blast cleaned and repainted in 1978-1981 with a basic lead silico-chromate paint system consisting of a 2 mil yellowish brown primer, a 2 mil grey second coat and a 2 mil cement grey topcoat. Grating of the roadway deck was overcoated with Carboline's Carbomastic 15 and C-Flex 321 high-build vinyl. No information was available on more recent maintenance painting.

Bridge Steel Guard Railing

- Observations

  The bridge steel guard railing channels, posts and angles has frequent peeling topcoat that in some cases is exposing heavily applied primer or intermediate coating that in some cases was map pattern cracking due to excessive mil thickness. Peeling was generally worse on the south railing

and posts. The north railing had slightly less peeling top coat on the south face and almost none on the back side or on the posts. The primer appears to be well adhering where not cracked and there is little rusting. Most rusting is light and scattered occurring generally on top surfaces of elements where cracked coating exists. The bridge railing runs from abutment to abutment and across the swing span. Approximately 20% - 30% of the top coat is peeling.

- Recommendations

    - Pressure wash and use chlor-rid on all surfaces to remove loose paint dirt and salt contamination. Spot blast or power tool clean rusted area and remove cracking paint. Spot prime with a moisture cured urethane zinc primer such as Wasser MC-zinc at spot cleaned areas and full overcoat with an intermediate coat of MC- Miomastic and topcoat with MC-Shieldcoat (color). On the main bridge pack rust exists at back to back angle railing connections to truss members. Spot cleaning and application of a penetrating sealer and the coatings followed by caulking of the seam across the top and down the sides is recommended.

    - Alternatively, full blast cleaning and painting with a 3 coat zinc, epoxy, polyurethane system should be considered.

West and East Approach Girder Spans

- Observations

    Paint conditions are generally good and paint is well adhering. Rust occurs at bearings below roadway joints. Heavier rusting occurs at stringer bearings at Piers 1 and 2 with light rusting of bearing areas at other approach span bents. These bearing may require spot blast cleaning. Some edge rusting was noted at the seam between concrete deck and along the edge of the stringer top flange. Also some rusting was noted along the edge of the approach stringer bottom flanges. The end 1'to 2' of the approach stringers and end diaphragms at both rest piers have been overcoated with the MS 285 alkyd paint system and is in good condition. A paint sample designated M-02-072105 was taken from a diaphragm between the north exterior and interior approach stringers at Pier 1.

    When removing the sample, it was noted that the end 2' of the girders have what appears to be 6 coats of paint a yellowish brown primer, a grey intermediate and a cement grey topcoat, the red MS 285 primer, red/brown intermediate and grey (aluminum) topcoat. The total mil thickness of all coats measured an average of 21 mils.

Sample M-03-072105 was taken from the web of the south exterior stringer at Pier 1 beyond the overcoated end. Coating thickness here measured 12 mils and consists of only the cement grey topcoat and grey intermediate and a yellowish brown primer. This coating system characterizes both approach stringer spans.

All paint applied to the girders is tightly adhering to the steel substrate and to each other and no peeling of top coat was noted.

- Recommendations

  - Pressure wash and remove dirt and chloride deposits from all surfaces. Spot blast the stringer bearing areas at each bent (end 2' of stringers). Power tool clean or spot blast top flange and bottom flange edges to remove existing rust. Spot prime with MC-zinc, full intermediate coat with MC-Miomastic and full topcoat with MC-Shield coat.

  - Alternatively, full blast cleaning and painting with a 3 coat zinc, epoxy, and polyurethane paint system should be considered.

Swing Span

- Observations

The truss metalwork with the exception of the underside of the lower chord and metalwork above the pivot pier and rest piers has been overcoated using what appears to be the alkyd MS 285 paint system. Overcoating of the truss with MS 285 system terminates at the floor beam ends at the exterior stringers. This overcoating system was applied over the existing paint system which consists of a yellowish brown primer, grey intermediate and cement grey top coat.

On the underside and topside of horizontal surfaces of floor system metalwork above the pivot pier the entire alkyd overcoat overcoating system is generally peeling off. This appears to result from unremoved salt contamination. On vertical surfaces coatings are well adhered. Paint sample M-01-072105 was taken from the web of the floor beam above the pivot pier.

Truss metalwork is losing the overcoating topcoat due to poor adhesion and in a few areas the peeling topcoat is exposing the MS 285 intermediate coat which is map pattern cracking due to heavy mil thickness. The south truss has more topcoat peeling than the north and rivets within the upper south truss connections are typically corroded with some loss of rivet heads. It is estimated that 20% - 30% of the truss topcoat is poorly adhered.

The floor system metalwork of the swing span beyond the overcoated areas is in generally good condition and is protected only by the original paint system which

is well adhered. These surfaces are dirty and are covered with mildew with some localized rusting of stringer end connections and some rivet or bolt heads.

The roadway grid deck was reported to be painted with Carbomastic 15 and a C-flex 321 high build vinyl. This coating is in generally good condition with some minor breakdown at some of the grid attachment welds to the stringer top flanges.

The underside of the truss lower chord has spots of rust generally occurring at conduit clamp bolted connections. It is possible that some of this is galvanic corrosion due to dissimilar metal of the conduit attachment bolts.

- Recommendations

    - Pressure wash all metalwork with Chlor-rid additive to remove peeling MS 285 topcoat, dirt, mildew and salt contamination.
      Spot blast or power tool clean rusted areas of the swing span and remove cracked MS 285 intermediate coat. Spot paint blast or power tool cleaned areas with MC-zinc, full intermediate coat with MC-Miomastic and full topcoat with MC-Shield coat.

    - Alternatively, full blast cleaning and repainting with a 3 coat zinc, epoxy and polyurethane paint system should be considered.

Summary

Attached are the results of analysis of the three paint samples taken during the inspection which indicate high levels of lead and chromate in the existing paint generally confirming the records indicating the past repainting with Basic Lead Silico Chromate Alkyd Coatings. Due to the high cost of removal of these lead based coatings and the generally good condition and adhesion of the original coating, the bridge is judged to be a good candidate for over-coating scenarios which should be considered. Further, it is unlikely that a full-blast cleaning and repainting would last the 30- 40 years life required in the proposal guideline. Overcoating should provide an additional 15 year life to the existing paint system.

If a lead free structure is desirable. Full-blast cleaning and repainting should be considered, however, this should be done prior to or in conjunction with conduit and hydraulic piping replacement to prevent damage. It is anticipated that full blast cleaning and repainting will provide a 20-25 year life.

M. J. Beitzel

Cc: Mr. D.F.Sorgenfrei
Mr. R.J. Eppehimer

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 WHITE PINE ROAD - RICHMOND, VA 23237
804-275-4788 FAX 804-275-4907

PAINT METALS ANALYSIS SUMMARY

CLIENT: Modjeski and Masters, Inc.
Attn: Michael J. Beitzel
1055 St. Charles Ave., Suite 400
New Orleans, LA 70130

DATE OF SAMPLING: 21 JUL 2005
DATE OF RECEIPT: 25 JUL 2005
DATE OF ANALYSIS: 27 JUL 2005
DATE OF REPORT: 27 JUL 2005

CLIENT NUMBER: 19-6115 D
EHS PROJECT #: 07-05-2993
PROJECT: LADOTD/Mermentau Briddge

EHS SAMPLE #: 07-05-2993-01
CLIENT SAMPLE #: M-01-072105
SAMPLE WEIGHT (g): 1.62

ANALYTE	CONCENTRATION PPM (mg/kg)	METHOD	REPORT LIMIT (ug)	MDL (ug)
CADMIUM (Cd)	<6.2	EPA SW846 3050B/6010B	10	0.045
CHROMIUM (Cr)	8000	EPA SW846 3050B/6010B	10	0.081
LEAD (Pb)	120000	EPA SW846 3050B/6010B	10	0.66

EHS SAMPLE #: 07-05-2993-02
CLIENT SAMPLE #: M-02-072105
SAMPLE WEIGHT (g): 0.569

ANALYTE	CONCENTRATION PPM (mg/kg)	METHOD	REPORT LIMIT (ug)	MDL (ug)
CADMIUM (Cd)	<18	EPA SW846 3050B/6010B	10	0.045
CHROMIUM (Cr)	5100	EPA SW846 3050B/6010B	10	0.081
LEAD (Pb)	79000	EPA SW846 3050B/6010B	10	0.66

EHS SAMPLE #: 07-05-2993-03
CLIENT SAMPLE #: M-03-072105
SAMPLE WEIGHT (g): 0.663

ANALYTE	CONCENTRATION PPM (mg/kg)	METHOD	REPORT LIMIT (ug)	MDL (ug)
CADMIUM (Cd)	<16	EPA SW846 3050B/6010B	10	0.045
CHROMIUM (Cr)	11000	EPA SW846 3050B/6010B	10	0.081
LEAD (Pb)	170000	EPA SW846 3050B/6010B	10	0.66

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 19-6115 D
EHS PROJECT #: 07-05-2993
PROJECT: LADOTD/Mermentau Briddge

ANALYST: Aubrey Simonds

Reviewed By Authorized Signatory: _____

Michael A. Mueller, MPH, Laboratory Director
Howard Varner, General Manager
Irma Faszewski, Quality Assurance Coordinator
David Xu, MS, Senior Chemist
Feng Jiang, MS, Technical Director

This method has been validated for sample weights of 0.020g or greater. When samples with a weight of less than that are analyzed those results fall outside of the scope of accreditations.

Sample Results denoted with a "less than" (<) sign contains less than the above stated reporting limit for each particular metal, based on a 100ml sample volume.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume etc., was provided by the client. This report shall not be reproduced, except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319 NY ELAP #11714

LEGEND	g = gram	ug = microgram	ppm = parts per million
	ml = milliliter	mg/kg = milligrams per kilogram	MDL = method detection limit

painmt3.dot/ICPVISTA/07APR2005/REV2/pd

-- PAGE 02 of 02 -- END OF REPORT --

3 pb, cd, cr paint

EHS 07-05-2993

MODJESKI and MASTERS
Consulting Engineers
SINCE 1893

CHAIN OF CUSTODY

CUSTOMER/SITE: LADOTD / Mermentau Bridge	**SAMPLER'S NAME:** Michael J. Beitzel
TYPE OF SAMPLE (MATRIX): Paint Chip	**NUMBER OF SAMPLES:** 3
TURNAROUND TIME: Rush	**DATE SAMPLED:** 07/21/05

SAMPLE ID	ANALYSIS REQUESTED	MATRIX	MISC	LAB ID
M-01-072105	Lead, Cadmium & Chromium	Paint Chip		
M-02-072105	Lead, Cadmium & Chromium	Paint Chip		
M-03-072105	Lead, Cadmium & Chromium	Paint Chip		

Send Results to: Attn: Michael J. Beitzel
Modjeski and Masters, Inc.
1055 St. Charles Ave., Suite 400
New Orleans, LA 70130

Phone: 504-524-4344
Fax: 504-561-1229
email: mjbeitzel@modjeski.com

Relinquished By: [signature] Date/Time: 7/22/05

(Lab) Received by: [signature] Date/Time: 7-25-05 10 10a

Page 1 of 1

Analytical Solutions
Acceptable
Unacceptable

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONSTRUCTION PROPOSAL INFORMATION FOR

FEDERAL AID PROJECT

STATE PROJECT NO. 194-02-0061
MERMENTAU RIVER BRIDGE REHABILITATION
ROUTE LA 82
CAMERON PARISH

BID BOND

A Bid Bond is required when the bidder's total bid amount as calculated by the Department in accordance with Subsection 103.01 is greater than $50,000. *(See Section 102 of the Project Specifications.)*

_____, as Principal
(Bidder) and
_____, as Surety,
are bound unto the State of Louisiana, Department of Transportation and Development, (hereinafter called the Department) in the sum of five percent (5%) of the bidder's total bid amount as calculated by the Department for payment, of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, as solidary obligors.

Signed and sealed this _____ day of _____, 20_____.

The condition of this obligation is such that, whereas the Principal has submitted a bid to the Department on a contract for the construction of **STATE PROJECT NO. 194-02-0061, FEDERAL AID PROJECT NO. 1204(504), MERMENTAU RIVER BRIDGE REHABILITATION, located in CAMERON PARISH, ROUTE LA 82,** if the bid is accepted and the Principal, within the specified time, enters into the contract in writing and gives bond with Surety acceptable to the Department for payment and performance of said contract, this obligation shall be void; otherwise to remain in effect.

Principal (Bidder or First Partner to Joint Venture)	If a Joint Venture, Second Partner
By _____	By _____
Authorized Officer-Owner-Partner	Authorized Officer-Owner-Partner
_____	_____
Typed or Printed Name	Typed or Printed Name

_____
Surety

By _____ (Seal)
Agent or Attorney-in-Fact

_____
Typed or Printed Name

To receive a copy of the contract and subsequent correspondence / communication from LA DOTD, with respect to the bid bonds, the following information must be provided:

_____	_____
Bonding Agency or Company Name	Address
_____	_____
Agent or Representative	Phone Number / Fax Number

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SCHEDULE OF ITEMS

LEAD PROJECT: 194-02-0061
OTHER PROJECTS:

DATE: 02/06/09 10:42 PAGE: 1

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
710-01	8	CUBIC YARD	FLOWABLE FILL _____ DOLLARS _____ CENTS
712-01	123	SQUARE YARD	CONCRETE CAST-IN-PLACE REVETMENT (4 " THICK) _____ DOLLARS _____ CENTS
713-01	LUMP	LUMP SUM	TEMPORARY SIGNS & BARRICADES _____ DOLLARS _____ CENTS
713-08	18	EACH	TEMPORARY PRECAST CONCRETE BARRIER (DEPARTMENT FURNISHED) _____ DOLLARS _____ CENTS
713-10	720	EACH	TEMPORARY PRECAST CONCRETE BARRIER MOVEMENT _____ DOLLARS _____ CENTS
727-01	LUMP	LUMP SUM	MOBILIZATION _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
730-09	LUMP	LUMP SUM	ELECTRICAL SYSTEM _____ DOLLARS _____ CENTS
731-02	58	EACH	REFLECTORIZED RAISED PAVEMENT MARKERS _____ DOLLARS _____ CENTS
732-01	3,381	LINEAR FOOT	PLASTIC PAVEMENT STRIPING (4" WIDTH) _____ DOLLARS _____ CENTS
737-03	816	LINEAR FOOT	PAINTED TRAFFIC STRIPING (SOLID LINE) _____ DOLLARS _____ CENTS
804-03	1,050	LINEAR FOOT	STEEL PILES (HP 12 X 53) _____ DOLLARS _____ CENTS
805-01	11.54	CUBIC YARD	CLASS A CONCRETE _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
808-01	4,938.7	SQUARE FOOT	STEEL GRID FLOORING _____ DOLLARS _____ CENTS
809-01	LUMP	LUMP SUM	MOVABLE BRIDGE MACHINERY _____ DOLLARS _____ CENTS
812-01	12.00	MFBM	TREATED TIMBER (COASTAL TREATMENT) _____ DOLLARS _____ CENTS
S-01	4	EACH	INSTALL PLATFORM AT WARNING GATES _____ DOLLARS _____ CENTS
S-02	LUMP	LUMP SUM	REPAIR ROOF OF OPERATOR'S HOUSE _____ DOLLARS _____ CENTS
S-03	1,443	SQUARE FEET	REPAIR CONCRETE SPALLS ON UNDERSIDE OF ROADWAY DECK _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-04	33	SQUARE FEET	REPAIR CONCRETE DECK SPALLS _____ DOLLARS _____ CENTS
S-05	3	SQUARE FEET	REPAIR CONCRETE RAILING SUPPORT SPALLS _____ DOLLARS _____ CENTS
S-06	20	LINEAR FOOT	REPLACE DAMAGED RAILING CHANNEL _____ DOLLARS _____ CENTS
S-07	LUMP	LUMP SUM	REMOVE CHANNEL AT NORTHWEST BARRIER COLUMN _____ DOLLARS _____ CENTS
S-08	LUMP	LUMP SUM	REPLACE NUTS AND WASHERS AT NORTHWEST BARRIER COLUMN _____ DOLLARS _____ CENTS
S-09	12	EACH	REPAIR/REPLACE ANCHOR BOLTS _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-10	36	EACH	REPLACE BOLTS IN LATERAL CONNECTION PLATE _____ DOLLARS _____ CENTS
S-11	4	EACH	INSTALL PLATFORMS AT BARRIER GATES _____ DOLLARS _____ CENTS
S-12	765	LINEAR FOOT	INSTALL NEW WATER LINE _____ DOLLARS _____ CENTS
S-13	418	LINEAR FOOT	REPLACE SIDEWALK CHECKERED PLATE _____ DOLLARS _____ CENTS
S-14	5	EACH	REPLACE LADDERS _____ DOLLARS _____ CENTS
S-15	LUMP	LUMP SUM	REPLACE NAVIGATION LIGHT SUPPORT PLATFORM _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-16	264	EACH	REPLACE DETERIORATED BOLTS _____ DOLLARS _____ CENTS
S-17	LUMP	LUMP SUM	INSTALL REST PIER FENDER ACCESS PLATFORM _____ DOLLARS _____ CENTS
S-18	400	LINEAR FOOT	INSTALL WALKWAY GRATING AND HANDRAIL ON TOP OF FENDER SYSTEM _____ DOLLARS _____ CENTS
S-19	LUMP	LUMP SUM	FIELD PAINT EXISTING BRIDGE METALWORK _____ DOLLARS _____ CENTS
S-20	34	EACH	REPLACE ANCHOR BOLT NUTS AND WASHERS _____ DOLLARS _____ CENTS
S-21	2	EACH	REPLACE OPERATOR HOUSE DOORS _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-22	8	EACH	REPLACE OPERATOR HOUSE WINDOW BLINDS _____ DOLLARS _____ CENTS
S-23	LUMP	LUMP SUM	REPAIR EXTERIOR WALL CRACKS AND PAINT EXTERIOR WALLS OF OPERATOR'S HOUSE _____ DOLLARS _____ CENTS
S-24	LUMP	LUMP SUM	REMODEL BATHROOM FIXTURES INSIDE OPERATOR'S HOUSE _____ DOLLARS _____ CENTS
S-25	LUMP	LUMP SUM	REPAIR AND INSTALL NEW FLOOR AND WALL TILES INSIDE OPERATOR'S HOUSE _____ DOLLARS _____ CENTS
S-26	LUMP	LUMP SUM	REMOVE AND REPLACE OPERATOR HOUSE WINDOWS _____ DOLLARS _____ CENTS
S-27	LUMP	LUMP SUM	PAINT INTERIOR OF OPERATOR'S HOUSE _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-28	LUMP	LUMP SUM	INSTALL MISCELLANEOUS ITEMS AT OPERATOR'S HOUSE _____ DOLLARS _____ CENTS
S-29	398	LINEAR FOOT	REMOVE ABANDONED CONDUIT _____ DOLLARS _____ CENTS
S-30	28	EACH	REMOVE ABANDONED CONDUIT HANGERS _____ DOLLARS _____ CENTS
S-31	LUMP	LUMP SUM	LATERAL BRACING REPAIRS _____ DOLLARS _____ CENTS
S-32	357	LINEAR FOOT	REPLACE ROADWAY STRINGERS _____ DOLLARS _____ CENTS
S-33	6	EACH	REPAIR HOLES IN CHORD WEB _____ DOLLARS _____ CENTS

ITEM NUMBER	APPROXIMATE QUANTITY	UNIT OF MEASURE	PAY ITEM UNIT PRICE (IN WORDS, INK OR TYPED)
S-34	LUMP	LUMP SUM	INSTALL WALKWAY AROUND OPERATOR'S HOUSE _____ DOLLARS _____ CENTS
S-35	1	EACH	INSTALL AIR COMPRESSOR PLATFORM AND DECK DRAIN PIPE _____ DOLLARS _____ CENTS
S-36	LUMP	LUMP SUM	MODIFY SUSPENDED PLATFORM HANGERS/SUPPORTS _____ DOLLARS _____ CENTS

CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM

THIS FORM, THE SCHEDULE OF ITEMS, AND THE PROPOSAL GUARANTY MUST BE COMPLETED AS INDICATED AND SUBMITTED TO THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT (DOTD) TO CONSTITUTE A VALID BID

STATE PROJECT NO. **194-02-0061**

FEDERAL AID PROJECT NO. **1204(504)**

NAME OF PROJECT **MERMENTAU RIVER BRIDGE REHABILITATION**

I (WE) HEREBY CERTIFY THAT I (WE) HAVE CAREFULLY EXAMINED THE PROPOSAL, PLANS AND SPECIFICATIONS, INCLUDING ANY AND ALL ADDENDA, AND THE SITE OF THE ABOVE PROJECT AND AM (ARE) FULLY COGNIZANT OF ALL PROPOSAL DOCUMENTS, THE MASTER COPY OF WHICH IS ON FILE AT DOTD HEADQUARTERS IN BATON ROUGE, LA., AND ALL WORK, MATERIALS AND LABOR REQUIRED THEREIN, AND AGREE TO PERFORM ALL WORK, AND SUPPLY ALL NECESSARY MATERIALS AND LABOR REQUIRED FOR SUCCESSFUL AND TIMELY COMPLETION OF THE ABOVE PROJECT AND TO ACCEPT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS ATTACHED HERETO AND MADE A PART HEREOF MULTIPLIED BY THE ACTUAL QUANTITY OF UNIT OF MEASURE PERFORMED FOR EACH ITEM, AS AUDITED BY DOTD, AS FULL AND FINAL PAYMENT FOR ALL WORK, LABOR AND MATERIALS NECESSARY TO COMPLETE THE ABOVE PROJECT, SUBJECT TO INCREASE ONLY FOR PLAN CHANGES (CHANGE ORDERS) APPROVED BY THE DOTD CHIEF ENGINEER OR HIS DESIGNEE. THIS BID IS SUBMITTED IN ACCORDANCE WITH THE GENERAL BIDDING REQUIREMENTS IN THE CONSTRUCTION PROPOSAL AND ALL SPECIAL PROVISIONS, PLANS, SUPPLEMENTAL SPECIFICATIONS, AND THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (2006 EDITION). I (WE) UNDERSTAND THAT THE SUMMATION OF THE PRODUCTS OF THE UNIT PRICES BID ON THE SCHEDULE OF ITEMS MULTIPLIED BY THE ESTIMATED QUANTITY OF UNIT OF MEASURE FOR EACH ITEM, ALONG WITH ANY OTHER FACTORS SPECIFIED TO BE APPLICABLE SUCH AS CONSTRUCTION TIME AND/OR LANE RENTAL, SHALL BE THE BASIS FOR THE COMPARISON OF BIDS. I (WE) UNDERSTAND THAT THE SCHEDULE OF ITEMS MUST CONTAIN UNIT PRICES WRITTEN OUT IN WORDS AND THAT THE SCHEDULE OF ITEMS SUBMITTED AS PART OF THIS BID IS ON THE FORM SUPPLIED BY DOTD IN THE BID PROPOSAL. MY (OUR) PROPOSAL GUARANTY IN THE AMOUNT SPECIFIED FOR THE PROJECT IS ATTACHED HERETO AS EVIDENCE OF MY (OUR) GOOD FAITH TO BE FORFEITED IF THIS BID IS ACCEPTED BY DOTD AND I (WE) FAIL TO COMPLY WITH ANY REQUIREMENT NECESSARY FOR AWARD AND EXECUTION OF THE CONTRACT, AS WELL AS, SIGN AND DELIVER THE CONTRACT AND PAYMENT/PERFORMANCE/RETAINAGE BOND AS REQUIRED IN THE SPECIFICATIONS.

NONCOLLUSION DECLARATION (APPLICABLE TO FEDERAL-AID PROJECTS)

I (WE) DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND THE STATE OF LOUISIANA THAT I (WE) HAVE NOT DIRECTLY OR INDIRECTLY, ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THE CONTRACT FOR THIS PROJECT NOR VIOLATED LA. R.S. 48:254.

BIDDER'S DBE GOAL STATEMENT (APPLICABLE TO DBE GOAL PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL PROJECT IN ACCORDANCE WITH THE DBE PROVISIONS OF THIS CONTRACT, THE BIDDER ASSURES DOTD THAT HE/SHE WILL MEET OR EXCEED THE DBE CONTRACT GOAL, OR IF THE BIDDER CANNOT MEET THE REQUIRED DBE GOAL, THE BIDDER ASSURES DOTD THAT HE/SHE HAS MADE AND CAN DOCUMENT GOOD FAITH EFFORTS MADE TOWARDS MEETING THE GOAL REQUIREMENT IN ACCORDANCE WITH THE CONTRACT AND DBE PROGRAM MANUAL INCORPORATED HEREIN BY REFERENCE.

THE APPARENT LOW BIDDER SHALL COMPLETE AND SUBMIT TO THE DOTD COMPLIANCE PROGRAMS OFFICE, FORM CS-6AAA AND ATTACHMENT(S) AND, IF NECESSARY, DOCUMENTATION OF GOOD FAITH EFFORTS MADE BY THE BIDDER TOWARD MEETING THE GOAL, WITHIN TEN BUSINESS DAYS AFTER THE OPENING OF BIDS FOR THIS PROJECT. RESPONSIVENESS OF INFORMATION SUPPLIED IN THIS SECTION OF THIS CONSTRUCTION PROPOSAL SIGNATURE AND EXECUTION FORM IS GOVERNED BY THE DBE REQUIREMENTS INCLUDED WITHIN THE SPECIFICATIONS AND DBE PROGRAM MANUAL.

CERTIFICATION OF EMPLOYMENT OF LOUISIANA RESIDENTS TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECTS (APPLICABLE TO TIME PROJECTS)

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS A TRANSPORTATION INFRASTRUCTURE MODEL FOR ECONOMIC DEVELOPMENT (TIME) PROJECT AS DEFINED IN ACT NO. 16 OF THE 1989 FIRST EXTRAORDINARY SESSION OF THE LEGISLATURE WHICH ENACTED PART V OF CHAPTER 7 OF SUBTITLE II OF TITLE 47 OF THE LOUISIANA REVISED STATUTES OF 1950, COMPRISED OF R.S. 47:820.1 THROUGH 820.6.

THE BIDDER CERTIFIES THAT AT LEAST 80 PERCENT OF THE EMPLOYEES EMPLOYED ON THIS TIME PROJECT WILL BE LOUISIANA RESIDENTS IN ACCORDANCE WITH LOUISIANA R.S. 47:820.3.

NON PARTICIPATION IN PAYMENT ADJUSTMENT (ASPHALT CEMENT AND FUELS) STATEMENT

IF THIS PROJECT IS DESIGNATED BY SPECIAL PROVISION AS BEING SUBJECT TO PAYMENT ADJUSTMENT FOR ASPHALT CEMENT AND/OR FUELS, THE BIDDER HAS THE OPTION OF REQUESTING EXCLUSION FROM SAID PAYMENT ADJUSTMENT PROVISIONS THAT ARE ESTABLISHED BY SPECIAL PROVISION ELSEWHERE HEREIN.

IF THE BIDDER DESIRES TO BE EXCLUDED FROM THESE PAYMENT ADJUSTMENT PROVISIONS,

THE BIDDER IS REQUIRED TO MARK HERE ☐

FAILURE TO MARK THIS BOX PRIOR TO BID OPENING WILL CONSTITUTE FORFEITURE OF THE BIDDER'S OPTION TO REQUEST EXCLUSION.

STATE PROJECT NO. **194-02-0061**

BIDDER SIGNATURE REQUIREMENTS (APPLICABLE TO ALL PROJECTS)

THIS BID FOR THE CAPTIONED PROJECT IS SUBMITTED BY:

Name of Principal (Individual, Firm, Corporation, or Joint Venture)

If Joint Venture, Name of First Partner

(Louisiana Contractor's License Number of Bidder or First Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

If Joint Venture, Name of Second Partner

(Louisiana Contractor's License Number of Second Partner to Joint Venture)

(Business Street Address)

(Business Mailing Address, if different)

(Area Code and Telephone Number of Business)

(Telephone Number and Name of Contact Person)

(Telecopier Number, if any)

ACTING ON BEHALF OF THE BIDDER, THIS IS TO ATTEST THAT THE UNDERSIGNED DULY AUTHORIZED REPRESENTATIVE OF THE ABOVE CAPTIONED FIRM, CORPORATION OR BUSINESS, BY SUBMISSION OF THIS BID, AGREES AND CERTIFIES THE TRUTH AND ACCURACY OF ALL PROVISIONS OF THIS PROPOSAL, INCLUSIVE OF THE REQUIREMENTS, STATEMENTS, DECLARATIONS AND CERTIFICATIONS ABOVE AND IN THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY. EXECUTION AND SIGNATURE OF THIS FORM AND SUBMISSION OF THE SCHEDULE OF ITEMS AND PROPOSAL GUARANTY SHALL CONSTITUTE AN IRREVOCABLE AND LEGALLY BINDING OFFER BY THE BIDDER.

(Signature)

(Printed Name)

(Title)

(Date of Signature)

(Signature)

(Printed Name)

(Title)

(Date of Signature)

CONTRACTOR'S TOTAL BASE BID $ _____

IT IS AGREED THAT THIS TOTAL, DETERMINED BY THE BIDDER, IS FOR PURPOSES OF OPENING AND READING BIDS ONLY, AND THAT THE LOW BID FOR THIS PROJECT WILL BE DETERMINED FROM THE EXTENSION AND TOTAL OF THE BID ITEMS BY DOTD.